



# STIC Search Report

## EIC 1700

STIC Database Tracking Number: 198894

**TO: John Hardee**  
**Location: REM 9A41**  
**Art Unit : 1751**  
**August 22, 2006**

**Case Serial Number: 10/761821**

**From: Mei Huang**  
**Location: EIC 1700**  
**REMSSEN 4B28**  
**Phone: 571/272-3952**  
**Mei.huang@uspto.gov**

### Search Notes

Examiner Hardee,

Please feel free to contact me if you have any questions or if you would like to refine the search query,

Thank you for using STIC services!

Mei Huang



Access DB# 198894

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: HARDEE Examiner #: \_\_\_\_\_ Date: 8/16/06  
Art Unit: 1751 Phone Number 30 21318 Serial Number: 15761824  
Mail Box and Bldg/Room Location: PA41 Results Format Preferred (circle): PAPER DISK E-MAIL

**If more than one search is submitted, please prioritize searches in order of need.**

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: \_\_\_\_\_

Inventors (please provide full names): \_\_\_\_\_

Earliest Priority Filing Date: \_\_\_\_\_

*\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

*Whatever you can find. Thanks.*

\*\*\*\*\*

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: <u>M&amp;H</u>	NA Sequence (#) _____	STN <input checked="" type="checkbox"/> _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: <u>8/22/06</u>	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext <input checked="" type="checkbox"/> _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

10/761,821

**1. An antistatic polymer composition comprising**

- a) a polymer substrate selected from the group consisting of the polyolefins, polyesters, polyamides and polylactic acids and

**b) a combination of**

- i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and clm. 2-8

- ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides. C1m. 14, 18, 19

2. A composition according to claim 1 in which the polyetheresteramides are aliphatic polyetheresteramides.

**3. A composition according to claim 1 in which the polyetheresteramides are aromatic polyetheresteramides.**

4. A composition according to claim 2 wherein the polyetheresteramide consists essentially of residues derived from (1) a polyamide oligomer having carboxylic end groups and having a number average molecular weight of from about 200 to about 15,000 and (2) a polyoxyalkylene glycol having a number average molecular weight of from about 200 to about 6,000.

5. A composition according to claim 4 where the carboxylic group is derived from adipic, sebacic, terephthalic or isophthalic acids or 3-sulfoisophthalic acid alkali metal and the

polyoxyalkylene glycol is polyethylene glycol.

6. A composition according to claim 3 wherein the polyetheresteramide consists essentially of residues derived from (1) a polyamide oligomer having carboxylic end groups and having a number average molecular weight of from about 200 to about 15,000 and (2) a polyoxyalkylated bisphenol compound having a number average molecular weight of from about 200 to about 6,000.

7. A composition according to claim 6 where the carboxylic group is derived from adipic, sebacic, terephthalic or isophthalic acids or 3-sulfoisophthalic acid alkali metal and wherein the polyoxyalkylated bisphenol compound is a polyoxyalkylated alkylidene bisphenol.

8. A composition according to claim 6 wherein the polyoxyalkylated bisphenol is the ethylene oxide adduct of bisphenol A.

9. A composition according to claim 1 where the migratory antistatic additives are selected from the group consisting of the alkylsulfonic acid salts.

10. A composition according to claim 9 where the alkylsulfonic acid salts are straight or branched chain  $C_2$ - $C_{22}$ alkylsulfonic acid salts.

11. A composition according to claim 9 where the alkylsulfonic acid salts are straight or branched chain  $C_{10}$ - $C_{18}$ alkylsulfonic acid salts.

12. A composition according to claim 9 where the alkylsulfonic acid salts comprise a counterion selected from the group consisting of the alkali metal cations, alkaline earth metal cations and zinc cation.



13. A composition according to claim 9 where the alkylsulfonic acid salts comprise a counterion selected from the group consisting of the cations of Li, Na, K, Ca, Mg and Zn.

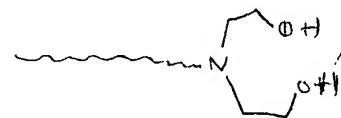
14. A composition according to claim 9 where the alkylsulfonic acid salts are a mixture of C<sub>10</sub>-C<sub>18</sub>alkylsulfonic acid sodium salts, CAS # 68037-49-0.

15. A composition according to claim 1 where the migratory antistatic additives are selected from the group consisting of the alkyl diethanolamines and the alkyl diethanolamides.

16. A composition according to claim 15 where alkyl is straight or branched chain C<sub>2</sub>-C<sub>22</sub>alkyl.

17. A composition according to claim 15 where alkyl is straight or branched chain C<sub>10</sub>-C<sub>18</sub> alkyl.

18. A composition according to claim 15 where the alkyl diethanolamines and the alkyl diethanolamides are hydrogenated tallow bis(2-hydroxyethyl)amine, tridecyl bis(2-hydroxyethyl)amine, pentadecyl bis(2-hydroxyethyl)amine, lauryl bis(2-hydroxyethyl)amine, hydrogenated tallow bis(2-hydroxyethyl)amide, tridecyl bis(2-hydroxyethyl)amide, pentadecyl bis(2-hydroxyethyl)amide or lauryl bis(2-hydroxyethyl)amide. Alkyl-  
61791-44-4  
68155-05-6  
→ IN



19. A composition according to claim 15 where the migratory additive is lauryl bis(2-hydroxyethyl)amide, CAS# 120-40-1.

20. A composition according to claim 1 where the polymer substrate is polyethylene, polypropylene, polyethylene/polypropylene copolymer, polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, polyamide 4, polyamide 6, polyamide 6,6, polyamide 6,10, polyamide 6,9, polyamide 6,12, polyamide 4,6, polyamide 12,12, polyamide 11, polyamide 12 and polylactic acid.

21. A composition according to claim 1 where the polyetheresteramides of component i) are present from about 0.5% to about 15% by weight, based on the weight of the polymer substrate.

22. A composition according to claim 1 where the polyetheresteramides of component i) are present from about 1% to about 10% by weight, based on the weight of the polymer substrate.

23. A composition according to claim 1 where the migratory additives of component ii) are present from about 0.05% to about 2% by weight, based on the weight of the polymer substrate.

24. A composition according to claim 1 where the migratory additives of component ii) are present from about 0.05% to about 1% by weight, based on the weight of the polymer substrate.

25. An antistatic additive mixture comprising

i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and

ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides.

**26. A process for the preparation of antistatically finished polymers selected from the group consisting of polyolefins, polyesters, polyamides and polylactic acids,**

**which process comprises mixing an additive mixture comprising**

**i) at least one permanent antistatic additive selected from the group consisting of the polyetheresteramides and**

**ii) at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides,**

**as such or in the form of its individual components and together with optional further additives with said polymers in calenders, mixers, kneaders or extruders.**

tas/cgc2139a



# STIC Search Results Feedback Form

**EIC17000**

Questions about the scope or the results of the search? Contact *the EIC searcher* or contact:

Kathleen Fuller, EIC 1700 Team Leader  
571/272-2505 REMSEN 4B28

## Voluntary Results Feedback Form

- > I am an examiner in Workgroup:  Example: 1713  
> Relevant prior art found, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

> Relevant prior art **not** found:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28

=> fil reg

FILE 'REGISTRY' ENTERED AT 15:30:07 ON 22 AUG 2006  
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(FILE 'HOME' ENTERED AT 11:17:27 ON 22 AUG 2006)

FILE 'HCAPLUS' ENTERED AT 11:17:54 ON 22 AUG 2006

E US20040171762/PN

L1 1 SEA US2004171762/PN

FILE 'REGISTRY' ENTERED AT 11:20:05 ON 22 AUG 2006

L2 30 SEA (120-40-1/BI OR 24936-74-1/BI OR 24937-16-4/BI OR  
L3 1 SEA L2 AND POLYETHYLENE/CN  
L4 1 SEA POLYPROPYLENE/CN  
L5 1 SEA 9010-79-1/RN  
L6 1 SEA 9020-73-9/RN  
L7 1 SEA 24968-12-5/RN  
L8 1 SEA 25038-59-9/RN  
L9 1 SEA 24938-56-5/RN  
L10 1 SEA 25038-54-4/RN  
L11 1 SEA 32131-17-2/RN  
L12 1 SEA 9008-66-6/RN  
L13 1 SEA 28757-63-3/RN  
L14 1 SEA 36348-71-7/RN  
L15 1 SEA 50327-22-5/RN  
L16 1 SEA 24936-74-1/RN  
L17 4 SEA "(C11H21NO)N"/MF  
L18 1 SEA 25035-04-5/RN  
L19 6 SEA "(C12H23NO)N"/MF  
L20 1 SEA 24937-16-4/RN  
L21 1 SEA 68037-49-0/RN  
L22 1 SEA 120-40-1/RN  
L23 1 SEA 61791-44-4/RN  
L24 0 SEA 68155-05-6/RN  
L25 1 SEA 25085-53-4/RN

FILE 'HCAPLUS' ENTERED AT 13:43:30 ON 22 AUG 2006

L26 390386 SEA L3 OR POLYETHYLENE# OR PE OR LDPE  
L27 181389 SEA L4 OR L25 OR POLYPROPYLENE# OR POLY(A) PROPYLENE# OR  
(ISO OR ISOTACTIC OR I) (A) (POLYPROYLENE# OR PP)  
L28 40888 SEA L5 OR (ETHYLENE(A) PROPYLENE OR EP OR E(A) P) (2A) (POLYM  
? OR COPOLYM? OR RESIN?)  
L29 3226 SEA L6 OR (POLYETHYLENE OR PE) (A) NAPHTHALATE#  
L30 16312 SEA L7 OR (POLYBUTYLENE OR PB) (A) TEREPHTHALATE#  
L31 84043 SEA L8 OR (POLYETHYLENE OR PE) (A) TEREPHTHALATE#  
L32 544 SEA L9 OR POLYAMIDE(W) 4  
L33 30575 SEA L10 OR POLYAMIDE(W) 6

Specific a), Chr. 20

L34  
L35  
L36  
L37  
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L42  
L43

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L56

g) Chr. 1

b) Chr. 14, 18, 19

b) Chr. 1

L34	14462	SEA L11	OR	POLYAMIDE (W) (6 (W) 6)
L35	14494	SEA L11	OR	POLYAMIDE (2A) (6 (W) 6)
L36	2032	SEA L12	OR	POLYAMIDE (2A) (6 (W) 10)
L37	366	SEA L13	OR	POLYAMIDE (2A) (6 (W) 9)
L38	194	SEA L14	OR	POLYAMIDE (2A) (12 (W) 12)
L39	1278	SEA L15	OR	POLYAMIDE (2A) (4 (W) 6)
L40	1361	SEA L16	OR	POLYAMIDE (2A) (6 (W) 12)
L41	3228	SEA L18	OR	POLYAMIDE (A) 11
L42	6311	SEA L20	OR	POLYAMIDE (A) 12
L43	10628	SEA L21	OR	((?SULFONIC OR SULPHONIC) (W) ACID) (2A) (SODIUM OR NA)
L44	1662	SEA L22	OR	(LAURIC OR LAUROYL OR LAURYL) (A) (DIETHANOLAMIDE# OR DIETHANOLAMINE#) OR LAUROYLDIETHANOLAMINE#
L45	15	SEA L23	OR	TALLOW (A) (BIS (W) (2 (W) HYDROXYETHYL) ) (2A) AMINE#
L46	93	SEA	(N (W) N (W) BIS (W) (2 (W) HYDROXYETHYL) ) (2A) AMINE#	
L47	94083	SEA	POLYOLEFIN?	
L48	337530	SEA	POLYESTER?	
L49	169978	SEA	POLYAMIDE?	
L50	76	SEA	POLYETHERESTERAMIDE# OR POLY (A) ETHERESTERAMIDE#	
L51	132	SEA	POLY (A) ETHER (A) ESTER (A) AMIDE#	
L52	8	SEA	POLY (A) ETHER (A) ESTERAMIDE#	
L53	180025	SEA	(?SULFONIC OR ?SOLPHONIC) (A) ACID#	
L54	5535	SEA	(?SULFONIC OR ?SOLPHONIC) (A) ACID# (A) SALT#	
L55	17650	SEA	DIETHANOLAMINE# OR DIETHANOLAMIDE#	
L56	25002	SEA	ANTISTATIC? OR ANTI (A) STATIC? OR STATIC? (2A) (RESIST? OR PROOF? OR INHIBIT?) OR STATICPROOF? OR STATICRESIST? OR STATICINHIBIT?	

FILE 'REGISTRY' ENTERED AT 14:42:32 ON 22 AUG 2006

L57	1	SEA	9011-52-3/RN
L58	1	SEA	9020-32-0/RN
L59	1	SEA	24968-97-6/RN
L60	1	SEA	26062-94-2/RN
L61	1	SEA	26098-55-5/RN
L62	1	SEA	27136-65-8/RN
L63	1	SEA	36497-34-4/RN
L64	1	SEA	50327-77-0/RN

FILE 'HCAPLUS' ENTERED AT 14:45:44 ON 22 AUG 2006

L65	1554	SEA	L57
L66	1480	SEA	L58
L67	571	SEA	L59
L68	14258	SEA	L60
L69	962	SEA	L61
L70	308	SEA	L62
L71	164	SEA	L63
L72	1026	SEA	L64
L73	18588	SEA	((L47 OR L48 OR L49) OR (L26 OR L27 OR L28 OR L29 OR L30 OR L31 OR L32 OR L33 OR L34 OR L35 OR L36 OR L37 OR L38 OR L39 OR L40 OR L41 OR L42)) AND ((L50 OR L51 OR L52) OR (L65 OR L66 OR L67 OR L68 OR L69 OR L70 OR L71 OR L72))

L74 231 SEA L73 AND ((L53 OR L54 OR L55) OR (L43 OR L44 OR L45  
 OR L46))  
 L75 59 SEA L74 AND L56  
 L76 1 SEA L1 AND L75  
 L77 2266 SEA STATIC?(2A) (HINDER? OR IMPED? OR ARREST? OR REDUC?  
 OR REDN# OR SUPPRESS? OR RETARD? OR PROHIBIT? OR  
 PREVENT? OR ELIMINAT?)  
 L78 0 SEA L74 AND L77  
 L79 5 S ANTICLING? OR ANTI(W)CLING?  
 L80 0 S L74 AND L79

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 15:30:15 ON 22 AUG 2006  
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=> d l75 ibib abs hitstr hitind 1-59

L75 ANSWER 1 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2006:13406 HCAPLUS  
 DOCUMENT NUMBER: 144:109131  
 TITLE: Thermoplastic resin compositions for molded  
 articles with good impact and chem. resistance,  
 surface appearance, and **antistatic**  
 properties or charge controlling properties  
 INVENTOR(S): Mawatari, Masaaki; Iwasaki, Yoshihiro  
 PATENT ASSIGNEE(S): Techno Polymer Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 82 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006001136	A1	20060105	WO 2005-JP8954	20050517

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KM, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC,  
 SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG,  
 US, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU,  
 IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG,  
 BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

JP 2006008815	A2	20060112	JP 2004-187255	200406 25
JP 2006008816	A2	20060112	JP 2004-187256	200406 25
JP 2005154730	A2	20050616	JP 2004-217344	200407 26
JP 2006199829	A2	20060803	JP 2005-13263	200501 20
PRIORITY APPLN. INFO.:			JP 2004-187255	A 200406 25
			JP 2004-187256	A 200406 25
			JP 2004-217344	A 200407 26
			JP 2005-13263	A 200501 20
			JP 2005-20384	A 200501 27
			JP 2005-72086	A 200503 14
			JP 2005-128377	A 200504 26
			JP 2003-378029	A 200311 07

AB Title resin compns. comprise (A) 5-100% a styrene resin obtained by (co)polymg. an arom. vinyl compd., or an arom. vinyl compd. and another copolymerizable vinyl monomer with the arom. compd. in or without the presence of a rubber-like polymer, (B) 0-95% an olefin resin, and (C) 0.5-100 parts (based on 100 parts A + B) a block



copolymer contg. an olefin polymer block and a hydrophilic polymer block. Thus, a compn. comprising an acrylonitrile-butadiene-styrene graft copolymer 32, an acrylonitrile-styrene copolymer 48, Novatec BC 6C 20, Pelestat 303 4 parts was kneaded and injection-molded to give a test piece, showing impact strength 7 kJ/m<sup>2</sup>, elec. resistance  $2 + 1010 \Omega$ , good chem. resistance and surface appearance.

IT 9002-88-4, Polyethylene

RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent contained; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

$\text{H}_2\text{C}=\text{CH}_2$

IT 9003-07-0, Novatec MA 1

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(blend with styrenic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6

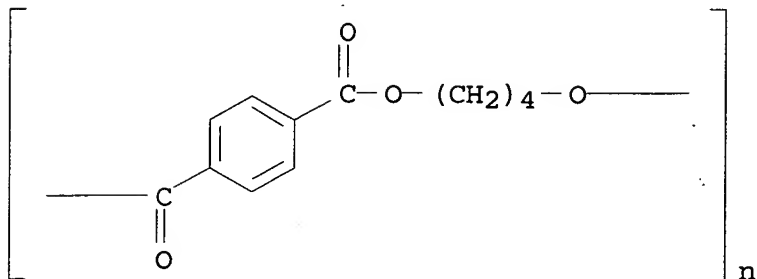
$\text{H}_3\text{C}-\text{CH}=\text{CH}_2$

IT 24968-12-5, Duranex XD 477 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

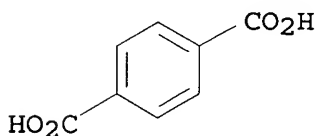
CMF C4 H10 O2

HO—(CH<sub>2</sub>)<sub>4</sub>—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L051-00

ICS C08L023-00; C08L023-26; C08L053-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38, 76

ST thermoplastic resin compn molded article impact chem resistance appearance; antistatic charge controlling property; styrenic polymer Novatec Pelestat compn

IT Polycarbonates, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(arom., blend with thermoplastic resin; thermoplastic resin

compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Polyolefins**

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(blend with styrenic resins; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Polyesters, properties**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Impact-resistant materials**

(chem. resistant; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Styrene-butadiene rubber, properties**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(hydrogenated, block, Dynaron 4600P, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Chemically resistant materials**

(impact-resistant; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Polyolefins**

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(maleated, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Polyethers, uses**

RL: MOA (Modifier or additive use); USES (Uses)

(polyamide-, antistatic agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT **Polyethers, uses**

RL: MOA (Modifier or additive use); USES (Uses)

(polyester-, antistatic agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

- IT **Polyesters, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, antistatic agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Polyamides, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, antistatic agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Polyolefins**  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, block, antistatic agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Polyethers, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyolefin-, block, antistatic agents; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Antistatic agents**  
Antistatic materials  
Laminated plastic films  
Plastic films  
(thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Molded plastics, properties**  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Polymer blends**  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(thermoplastic resins; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT **Plastics, uses**  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(thermoplastics; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)
- IT 694491-73-1, Butadiene-styrene triblock copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical

or engineered material use); USES (Uses)

(TR 2500, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9002-88-4, Polyethylene

RL: MOA (Modifier or additive use); USES (Uses)

(antistatic agent contained; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 56-81-5D, Glycerin, esters 74-85-1D, Ethylene, polyether block copolymers 111-42-2D, Diethanolamine, derivs.

115-07-1D, Propylene, polyether block copolymers 7550-35-8, Lithium bromide 9078-36-8, Electrostripper EA 31566-31-1, Electrostripper TS 5 603105-88-0, Hi-Boron 400N 663164-12-3, Electrostripper TS 3B 683273-61-2, Sankonol 0862-10T 852533-77-8, TEP 004 854077-51-3, Pelestat 303 872834-37-2, Pelestat 230 872834-38-3, Pelestat M 140 872834-91-8, Hi-Boron MB 400N8LDPE 872834-97-4, Sankonol AQ 50T

RL: MOA (Modifier or additive use); USES (Uses)

(antistatic agent; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9003-54-7P, Acrylonitrile-styrene copolymer 27341-67-9P, Acrylonitrile-methacrylic acid-styrene copolymer 28879-41-6P, Acrylonitrile-2-hydroxyethyl methacrylate-styrene copolymer 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blend with styrenic resin and olefin resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 9003-07-0, Novatec MA 1 106565-43-9, Novatec BC 6C

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(blend with styrenic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 106758-55-8DP, Acrylonitrile-butadiene-styrene block graft copolymer, hydrogenated 694491-73-1DP, Butadiene-styrene triblock copolymer, hydrogenated 709030-54-6DP, Butadiene-styrene diblock copolymer, hydrogenated

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(blend with thermoplastic resin; thermoplastic resin compns. for

molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 108-31-6D, Maleic anhydride, reaction products with polyolefins 24968-12-5, Duranex XD 477 26062-94-2 73597-68-9, Novarex 7022P 105729-79-1D, Isoprene-styrene block copolymer, hydrogenated, polycarbonate block 153700-46-0, Youmex 1001 156859-04-0, Youmex 1010 851895-60-8, TMS 4L77

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 106107-54-4P, Butadiene-styrene block copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(multiblock, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

IT 106107-54-4D, hydrogenated, block  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(styrene-butadiene rubber, Dynaron 4600P, blend with thermoplastic resin; thermoplastic resin compns. for molded articles with good impact and chem. resistance, surface appearance, and antistatic properties or charge controlling properties)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 2 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:1129284 HCAPLUS  
DOCUMENT NUMBER: 143:387940  
TITLE: Fire-resistant and antistatic polyester compositions for lighting parts  
INVENTOR(S): Numata, Takayoshi  
PATENT ASSIGNEE(S): Wintech Polymer Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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MEI HUANG	EIC1700	REM4B28	571-272-3952	
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08/22/2006

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JP 2005290367 A2 20051020 JP 2005-64889 200503  
CN 1667042 A 20050914 CN 2005-10054756 09  
200503  
11  
PRIORITY APPLN. INFO.: JP 2004-71784 A 200403  
12

AB The compn. comprises (A) a polyester, (B) a halogenated bisphenol-type epoxy resin terminated with epoxy group with no. av. mol. wt. >8000, (C) an antimony-type fireproofing agent, and (D) an antistatic agent. Thus, 100 parts poly(butylene terephthalate) was mixed with F 3100 (brominated bisphenol A epoxy resin) 20.2, Fire Guard 7500 (halogenated bisphenol A polycarbonate) 5.4, PATOX-M (antimony trioxide) 5.4 and TPL 456 (antistatic agent) 2.7 parts and other additives, and injection molded to give a test piece showing UL 94 fire resistance rate V-0, surface resistance  $2.3 \times 10^{12} \Omega$  and tensile strength 60 MPa.

IT 26062-94-2, Poly(butylene terephthalate)  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; fire-resistant and antistatic polyester compns. for lighting parts)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

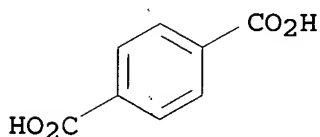
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

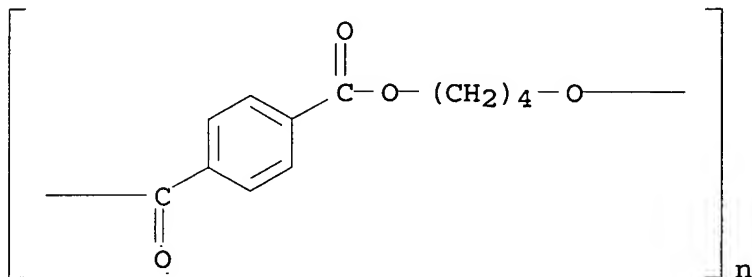
CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate)  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (fire-resistant and antistatic polyester compns. for lighting parts)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L067-00  
 ICS C08K003-18; C08K005-42; C08L063-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 76  
 ST **polyester** compn fire resistance lighting part; halogenated bisphenol epoxy resin fireproofing agent; antimony oxide fireproofing agent **polyester antistatic**  
 IT **Sulfonic acids, uses**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkanesulfonic, salts, antistatic agent; fire-resistant and antistatic polyester compns. for lighting parts)  
 IT **Sulfonic acids, uses**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkylarene, salts, antistatic agent; fire-resistant and antistatic polyester compns. for lighting parts)  
 IT **Sulfonic acids, uses**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (arenesulfonic, salts, antistatic agent; fire-resistant and antistatic polyester compns. for lighting parts)  
 IT Epoxy resins, uses  
 Polycarbonates, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (brominated, fireproofing agents; fire-resistant and antistatic polyester compns. for lighting parts)  
 IT **Antistatic agents**  
 Fire-resistant materials  
 Fireproofing agents

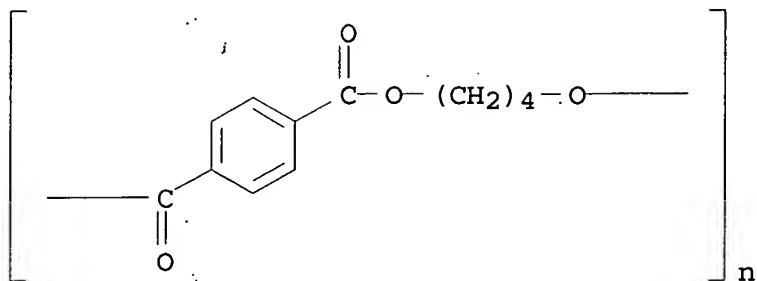


- (fire-resistant and antistatic polyester compns. for lighting parts)
- IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(fire-resistant and antistatic polyester compns. for lighting parts)
- IT Epoxy resins, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(halogenated, fireproofing agents; fire-resistant and antistatic polyester compns. for lighting parts)
- IT Light sources  
(holder; fire-resistant and antistatic polyester compns. for lighting parts)
- IT Aromatic compounds  
RL: MOA (Modifier or additive use); USES (Uses)  
(sulfonates, antistatic agent; fire-resistant and antistatic polyester compns. for lighting parts)
- IT 25155-30-0, TPL 456  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent; fire-resistant and antistatic polyester compns. for lighting parts)
- IT 27815-51-6  
RL: MOA (Modifier or additive use); USES (Uses)  
(assumed monomers, fireproofing agent; fire-resistant and antistatic polyester compns. for lighting parts)
- IT 26062-94-2, Poly(butylene terephthalate)  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; fire-resistant and antistatic polyester compns. for lighting parts)
- IT 28774-93-8, Fire Guard 7500  
RL: MOA (Modifier or additive use); USES (Uses)  
(fire-resistant and antistatic polyester compns. for lighting parts)
- IT 24968-12-5, Poly(butylene terephthalate)  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(fire-resistant and antistatic polyester compns. for lighting parts)
- IT 1309-64-4, PATOX M, uses 861968-60-7, F 3100 866041-91-0, Pratherm EC 200  
RL: MOA (Modifier or additive use); USES (Uses)  
(fireproofing agent; fire-resistant and antistatic polyester compns. for lighting parts)
- IT 13473-74-0D, Antimonic acid (HSbO3), salts  
RL: MOA (Modifier or additive use); USES (Uses)  
(fireproofing agents; fire-resistant and antistatic polyester compns. for lighting parts)

L75 ANSWER 3 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2005:545697 HCAPLUS  
DOCUMENT NUMBER: 143:60775  
TITLE: **Antistatic polyester resin**  
compositions and moldings thereof  
INVENTOR(S): Ueda, Motonori; Tajiri, Toshiyuki; Nakada,  
Michio  
PATENT ASSIGNEE(S): Mitsubishi Engineering-Plastic Corporation,  
Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005162910	A2	20050623	JP 2003-405093	200312 03
PRIORITY APPLN. INFO.:				200312 03

OTHER SOURCE(S): MARPAT 143:60775  
AB Resin compns. contain **polyesters** 100, polyalkylene glycols  
0.05-15, and org. **sulfonic acid** Ca salts 0.01-5  
parts. Thus, a plate contained Novaduran 5020 100,  
**Polyethylene Glycol** 6000P 2.5, Ca dodecylbenzenesulfonate  
1.2 parts.  
IT 24968-12-5, Novaduran 5020  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(Novaduran 5020 and 5008; **polyester resin compns.** and  
moldings thereof)  
RN 24968-12-5 HCAPLUS  
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IT 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; **polyester** resin compns. and moldings thereof)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

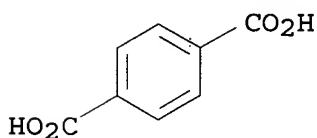
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-00

ICS C08K005-42; C08L071-02

CC 37-6 (Plastics Manufacture and Processing)

ST **antistatic PBT polyester polyalkylene glycol sulfonate**

IT Glass fibers, uses

RL: MOA (Modifier or additive use); USES (Uses)  
(T 187; **polyester** resin compns. and moldings thereof)

IT Molding of plastics and rubbers

(injection; polyester resin compns. and moldings thereof)

IT Antistatic agents  
 Fillers  
 Fireproofing agents  
 (polyester resin compns. and moldings thereof)

IT Polyoxyalkylenes, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyester resin compns. and moldings thereof)

IT Polyesters, properties  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyester resin compns. and moldings thereof)

IT 26264-06-2, BC 2070M  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (BC 2070M; polyester resin compns. and moldings thereof)

IT 24968-12-5, Novaduran 5020  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (Novaduran 5020 and 5008; polyester resin compns. and moldings thereof)

IT 26062-94-2  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (assumed monomers; polyester resin compns. and moldings thereof)

IT 25322-68-3, PEG 6000P 152987-73-0, SR-T 5000  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyester resin compns. and moldings thereof)

L75 ANSWER 4 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:471204 HCAPLUS

DOCUMENT NUMBER: 143:8587

TITLE: Thermoplastic resin compositions and molded products thereof with excellent chemical and impact resistance and antistatic properties

INVENTOR(S): Umawatari, Masaaki

PATENT ASSIGNEE(S): Techno Polymer Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005139312	A2	20050602	JP 2003-377778	200311

PRIORITY APPLN. INFO.:

JP 2003-377778

07

200311

07

AB The compns. comprise (A) 5-95% styrene polymers prepd. by (co)polymn. of arom. vinyl compds. and optionally other comonomers in the presence or absence of rubbers, (B) 5-95% (A + B = 100%) arom. **polyesters**, and (C) 0.5-50 phr poly(ether-ester)-based **antistatic** agents. Thus, ABS graft copolymer 15, acrylonitrile-styrene copolymer 15, PET (Novapex GS 400) 70, and org. **sulfonic acid**-phenolic antioxidant-poly(ether-ester) **antistatic** agent (TEP 004) 10 parts were blended, kneaded, pelletized, and injection molded to give a test piece showing Charpy impact strength with notch 9 kJ/m<sup>2</sup>, good gasoline resistance, and surface resistivity 5 + 10<sup>11</sup> Ω.

IT 26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; styrene resin-arom. **polyester** -poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

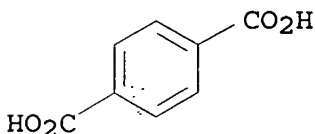
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 24968-12-5, Duranex XD 477 25038-59-9, Novapex GS 400, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

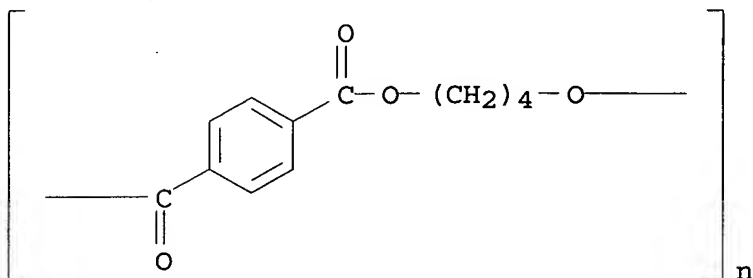
MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

(styrene resin-arom. polyester-poly(ether-ester)  
compns. with good chem. and impact resistance and  
antistatic property)

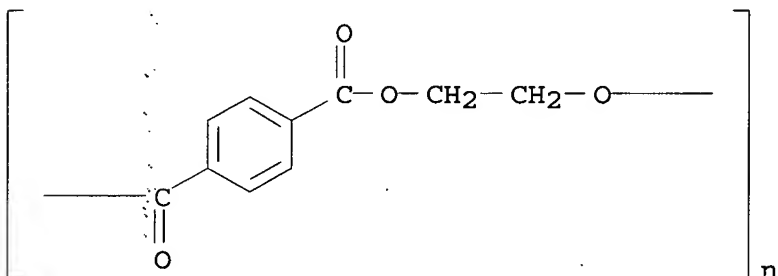
RN 24968-12-5 HCAPLUS.

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IC ICM C08L051-04

ICS C08K005-13; C08K005-42; C08L025-08; C08L067-00

CC 37-6 (Plastics Manufacture and Processing)

ST antistatic ABS SAN PET polyether polyester

blend; impact resistance ABS resin SAN polyester blend;

gasoline resistance ABS resin SAN polyester blend

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)

(antistatic agents contg.; styrene resin-arom.

polyester-poly(ether-ester) compns. with good chem. and  
impact resistance and antistatic property)

IT Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)

(arom.; styrene resin-arom. polyester-poly(ether-ester)  
compns. with good chem. and impact resistance and  
antistatic property)

- IT Antioxidants  
(phenolic, **antistatic** agents contg.; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polyethers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**polyester**-; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Glass fibers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(reinforcement, CS 03MA419; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Antistatic agents  
Antistatic materials  
Chemically resistant materials  
Impact-resistant materials  
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polyesters, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT Polymer blends  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT 26062-94-2  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; styrene resin-arom. **polyester**-poly(ether-ester) compns. with good chem. and impact resistance and **antistatic** property)
- IT 9003-54-7P, Acrylonitrile-styrene copolymer 27341-67-9P, Acrylonitrile-methacrylic acid-styrene copolymer 28879-41-6P, Acrylonitrile-2-hydroxyethyl methacrylate-styrene copolymer 29762-66-1P, Acrylonitrile-glycidyl methacrylate-styrene copolymer 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP

(Preparation); USES (Uses)

(styrene resin-arom. polyester-poly(ether-ester)  
comps. with good chem. and impact resistance and  
antistatic property)

IT 852533-77-8, TEP 004

RL: MOA (Modifier or additive use); USES (Uses)

(styrene resin-arom. polyester-poly(ether-ester)  
comps. with good chem. and impact resistance and  
antistatic property)

IT 24968-12-5, Duranex XD 477 25038-59-9, Novapex GS

400, properties

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)

(styrene resin-arom. polyester-poly(ether-ester)  
comps. with good chem. and impact resistance and  
antistatic property)

L75 ANSWER 5 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:315809 HCAPLUS

DOCUMENT NUMBER: 142:356401

TITLE: Biaxially stretched polyester films  
for folding

INVENTOR(S): Ueno, Hiroyuki; Oda, Hisanobu; Yamamoto,  
Katsushi

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2005096386	A2	20050414	JP 2003-361485	200310 22
PRIORITY APPLN. INFO.:			JP 2003-298884	A 200308 22

AB The films, useful as cellophane substitutes, have upper and lower yield points on the stress-stain curve with their ratio (lower yield strength/upper yield strength)  $\leq 0.90$ , and friction coeff. 0.25-0.90. Thus, a compn. of PET 50, a terephthalic acid-ethylene glycol-neopentyl glycol copolymer 40, and PBT 10% was melt extruded, quenched, stretched biaxially, heat-set at 215° with relaxing, and coated with a Na alkylsulfonate to give an antistatic film showing the yield strength ratio 0.84, friction coeff. 0.27, upper yield strength 69 MPa, surface resistivity  $1 + 109 \Omega/\text{box.}$ , max. heat shrinkage 2.8%,

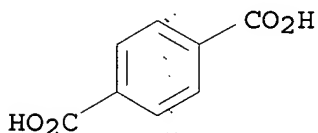


and good twist packaging properties.

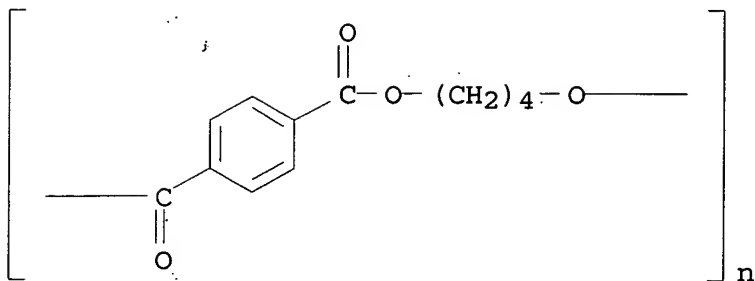
IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(assumed monomers; biaxially stretched polyester films  
with good twisting property)  
RN 26062-94-2 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)  
  
CM 1  
  
CRN 110-63-4  
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

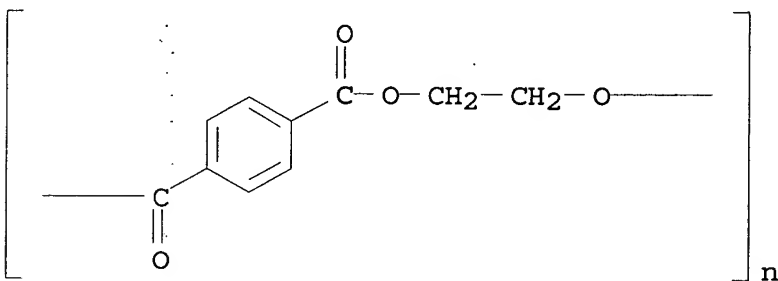
CM 2  
  
CRN 100-21-0  
CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate) sru  
25038-59-9, uses  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(biaxially stretched polyester films with good twisting  
property)  
RN 24968-12-5 HCAPLUS  
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IC ICM B29C055-12  
 ICS B32B009-00; B29K067-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 ST twist packaging polyester film antistatic; PET  
 PBT neopentyl glycol copolyester blend twist packaging film  
 IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkanesulfonic, sodium salts, antistatic agent;  
 biaxially stretched polyester films with good twisting  
 property)  
 IT Polyesters, uses  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
 or engineered material use); USES (Uses)  
 (biaxially stretched polyester films with good twisting  
 property)  
 IT Polymer blends  
 RL: PRP (Properties); TEM (Technical or engineered material use);  
 USES (Uses)  
 (biaxially stretched polyester films with good twisting  
 property)  
 IT Packaging materials  
 (films, antistatic; biaxially stretched  
 polyester films with good twisting property)  
 IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; biaxially stretched polyester films with good twisting property)

IT 24968-12-5, Poly(butylene terephthalate) sru

25038-59-9, uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(biaxially stretched polyester films with good twisting property)

IT 7429-90-5, Aluminum, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(deposition layer; biaxially stretched polyester films with good twisting property)

L75 ANSWER 6 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:212420 HCAPLUS

DOCUMENT NUMBER: 142:281154

TITLE: Thermoplastic polyester compositions with long-lasting antistatic properties and good fire, blocking, and impact resistance, and their sliding parts

INVENTOR(S): Ishii, Hiromitsu; Nagao, Takashi; Utazaki, Kenichi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2005060428	A2	20050310	JP 2003-207399	20030812
				20030812

PRIORITY APPLN. INFO.: JP 2003-207399

AB The compns., useful for electrophotog. devices, comprise thermoplastic polyesters 100, antistatic polymers 0.5-40, and fatty acid esters 0.1-15 parts. Thus, test pieces comprising PBT (PBT 1100S) 100, adipic acid-caprolactam-polyethylene glycol block copolymer 5, and ethylene glycol distearate (Emanon 3201M) 2 parts showed dynamic friction coeff. by a 20-h thrust friction test 0.23, notched Izod impact strength (ASTM D 256) 60 J/m, and vol. resistivity after heating at 60° for 200 h 4 + 1013  $\Omega \cdot \text{cm}$ .

IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (assumed monomers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

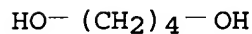
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

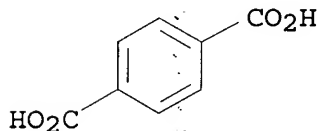
CMF C4 H10 O2



CM 2

CRN 100-21-0

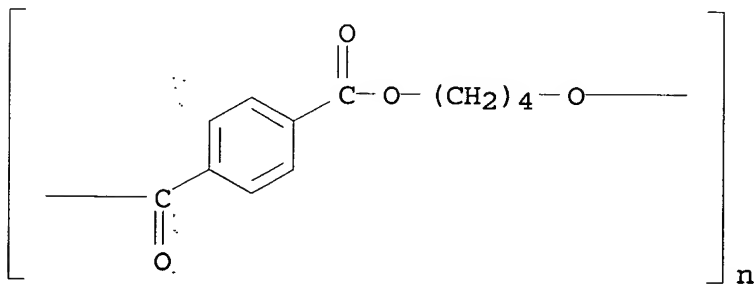
CMF C8 H6 O4



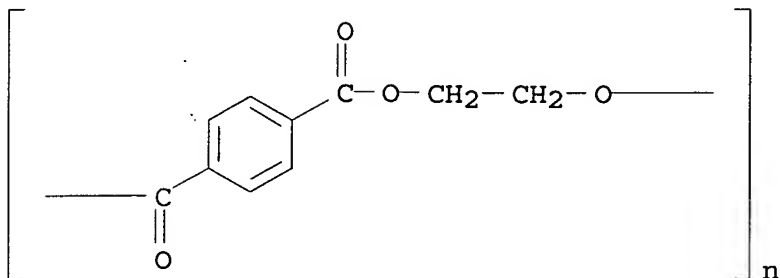
IT 24968-12-5, PBT 1100S 25038-59-9, J 055, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylene-carbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L067-00  
 ICS C08K003-00; C08K005-00; C08K005-10; F16C033-20; C08L101-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 ST fire resistance sliding PBT **polyethylene glycol**; impact resistance **polyester** ethylene glycol distearate; antiblocking PBT adipate caprolactam ethoxylated block; long lasting **antistatic polyamide polyester polyoxyalkylene**  
 IT Glass fibers, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (120H, fillers; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)  
 IT **Sulfonic acids**, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (alkanesulfonic, salts, with sodium, **antistatic** agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)  
 IT Epoxy resins, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (brominated, fireproofing agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)  
 IT Polycarbonates, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (bromine-contg., fireproofing agents; fire-, blocking-, and impact-resistant **polyester** sliding parts with long-lasting **antistatic** properties)  
 IT **Antistatic materials**  
 Fireproofing agents  
 (fire-, blocking-, and impact-resistant **polyester**)

- sliding parts with long-lasting antistatic properties)
- IT **Polyesters, uses**  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Polymer blends**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Impact-resistant materials**  
(fire-resistant; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Halogen compounds**  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(fireproofing agents; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Fire-resistant materials**  
(impact-resistant; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Polyoxyalkylenes, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyamide-polyester-, block, antistatic polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Polyesters, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyamide-polyoxyalkylene-, block, antistatic polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Polyoxyalkylenes, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-, block, antistatic polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT **Polyamides, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyester-polyoxyalkylene-, block, antistatic

- polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT Polyesters, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, block, antistatic polymers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT Machinery parts  
(sliding; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 7631-86-9, Silica, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(antistatic agent contg.; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 152231-81-7, Electrostripper PC 3  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(antistatic agent; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 115180-63-7P, Adipic acid-caprolactam-polyethylene glycol block copolymer 115786-07-7P, 1,4-Butanediol-polyethylene glycol-terephthalic acid block copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(antistatic polymer; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 627-83-8, Emanon 3201M 3234-85-3, Exceparl MY-M  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 24968-12-5, PBT 1100S 25038-59-9, J 055, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)
- IT 27815-51-6, Carbonic acid-3,3',5,5'-tetrabromobisphenol A polymer

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agent, assumed monomers; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

IT 5945-33-5, FP 600 28774-93-8, FG 7000 139189-30-3, PX 200 152987-73-0, SR-T 5000

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing agent; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

IT 37640-57-6, MC 610

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(fireproofing aid; fire-, blocking-, and impact-resistant polyester sliding parts with long-lasting antistatic properties)

L75 ANSWER 7 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:119922 HCAPLUS

DOCUMENT NUMBER: 142:187882

TITLE: Electrostatic composition based on polyamide matrix

INVENTOR(S): Peduto, Nicolangelo; Bradley, Gerard

PATENT ASSIGNEE(S): Rhodia Engineering Plastics S. A., Fr.

SOURCE: Fr. Demande, 23 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
FR 2858624	A1	20050211	FR 2003-9782	20030808
FR 2858624	B1	20050909		
CA 2535023	AA	20050224	CA 2004-2535023	20040803
WO 2005017038	A2	20050224	WO 2004-FR2077	20040803
WO 2005017038	A3	20050609		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD,			



SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,  
 VC, VN, YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,  
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,  
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL,  
 PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,  
 GW, ML, MR, NE, SN, TD, TG

EP 1651714 A2 20060503 EP 2004-786252

200408  
 03

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRIORITY APPLN. INFO.:

FR 2003-9782

A

200308  
 08

WO 2004-FR2077

W

200408  
 03

AB The present invention relates to a compn. contg. matrix  
**polyamide** comprising elec. conducting loads and **anti**  
**-static** agents. Working of this compn. makes it possible  
 to obtain plastic articles such as for example parts of body in the  
 technol. of the car, having a good capacity to be painted by a  
 process of electrostatic deposition of painting.

IT 9002-88-4

RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)

(ULDPE; electrostatic compn. based on **polyamide** matrix)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H<sub>2</sub>C=CH<sub>2</sub>

IT 9011-52-3 27136-65-8 50327-77-0

RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)

(assumed monomers; electrostatic compn. based on  
**polyamide** matrix)

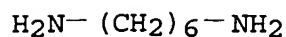
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX  
 NAME)

CM 1

CRN 124-09-4

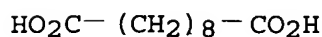
CMF C6 H16 N2



CM 2

CRN 111-20-6

CMF C10 H18 O4



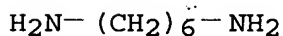
RN 27136-65-8 HCAPLUS

CN Nonanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4

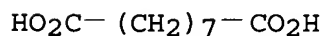
CMF C6 H16 N2



CM 2

CRN 123-99-9

CMF C9 H16 O4



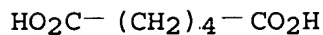
RN 50327-77-0 HCAPLUS

CN Hexanedioic acid, polymer with 1,4-butanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-04-9

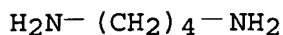
CMF C6 H10 O4



CM 2

CRN 110-60-1

CMF C4 H12 N2



IT 9003-07-0, Polypropylene 9008-66-6,  
 Nylon 6.10 24937-16-4, Nylon 12 24938-56-5,  
 Nylon 4 25035-04-5, Nylon 11 25038-54-4, ASN 27  
 S, properties 28757-63-3, Nylon 6.9 32131-17-2,  
 Technyl 27 A00, properties 50327-22-5, Nylon 4.6  
 RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
 process); PRP (Properties); TEM (Technical or engineered material  
 use); PROC (Process); USES (Uses)  
 (electrostatic compn. based on polyamide matrix)

RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

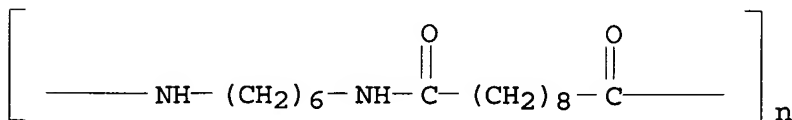
CRN 115-07-1

CMF C3 H6



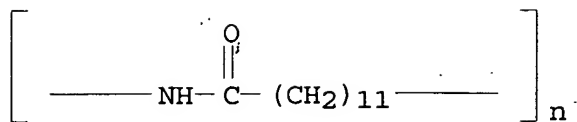
RN 9008-66-6 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)  
 (CA INDEX NAME)



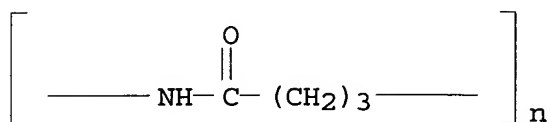
RN 24937-16-4 HCAPLUS

CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



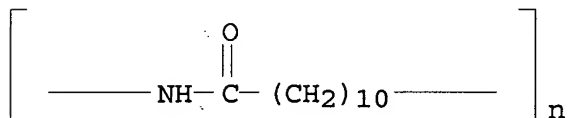
RN 24938-56-5 HCAPLUS

CN Poly[imino(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)



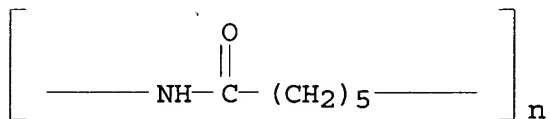
RN 25035-04-5 HCAPLUS

CN Poly[imino(1-oxo-1,11-undecanediyl)] (9CI) (CA INDEX NAME)



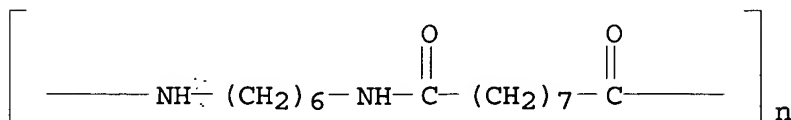
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



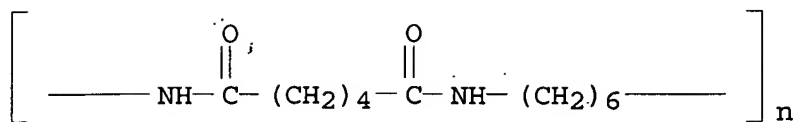
RN 28757-63-3 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,9-dioxo-1,9-nonanediyl)] (9CI) (CA INDEX NAME)



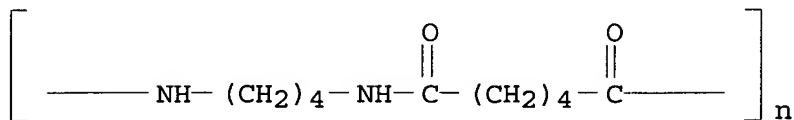
RN 32131-17-2 HCAPLUS

CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



RN 50327-22-5 HCAPLUS

CN Poly[imino-1,4-butanediylimino(1,6-dioxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 9010-79-1D, maleated

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ethylene-propylene rubber; electrostatic compn. based on polyamide matrix)

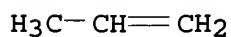
RN 9010-79-1 HCAPLUS

CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



CM 2

CRN 74-85-1

CMF C2 H4



IC ICM C08L077-00

ICS C08K003-04; C09D005-46; C09D177-00

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38, 42

ST electrostatic compn polyamide matrix automobile  
electrostatic deposition painting

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

- IT **Polyolefin rubber**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(LLDPE; electrostatic compn. based on **polyamide matrix**)
- IT **Synthetic rubber, properties**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(acrylic-acrylonitrile-styrene; electrostatic compn. based on **polyamide matrix**)
- IT **Sulfonic acids, properties**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(alkanesulfonic, sodium salts; electrostatic compn. based on **polyamide matrix**)
- IT **Paints**  
(electrodeposited, electrostatic deposition; electrostatic compn. based on **polyamide matrix**)
- IT **Antistatic agents**  
Conducting polymers  
(electrostatic compn. based on **polyamide matrix**)
- IT **ABS rubber**  
Acrylic rubber  
Carbon black, properties  
Glass, properties  
Glycerides, properties  
Ionomers  
Metals, properties  
Mica-group minerals, properties  
Plastics, properties  
**Polyamides, properties**  
Polyoxyalkylenes, properties  
Styrene-butadiene rubber, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(electrostatic compn. based on **polyamide matrix**)
- IT **Automobiles**  
(electrostatic deposition painting; electrostatic compn. based on **polyamide matrix**)
- IT **Alcohols, properties**  
**Amines, properties**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(ethoxylated; electrostatic compn. based on **polyamide matrix**)
- IT **Styrene-butadiene rubber, properties**  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material

use); PROC (Process); USES (Uses)  
(hydrogenated, block, triblock; electrostatic compn. based on  
**polyamide** matrix)

IT Fillers  
(inorg., metal coated; electrostatic compn. based on  
**polyamide** matrix)

IT EPDM rubber  
Ethylene-propylene rubber  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(maleated; electrostatic compn. based on **polyamide**  
matrix)

IT Coating process  
(painting, electrostatic deposition; electrostatic compn. based  
on **polyamide** matrix)

IT Electrodeposits  
(paints, electrostatic deposition; electrostatic compn. based on  
**polyamide** matrix)

IT Rubber, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(polyacrylic; electrostatic compn. based on **polyamide**  
matrix)

IT Polyethers, properties  
Polyoxyalkylenes, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(**polyamide-**; electrostatic compn. based on  
**polyamide** matrix)

IT Polyamides, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(polyether-; electrostatic compn. based on **polyamide**  
matrix)

IT Polyamides, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(polyoxyalkylene-; electrostatic compn. based on  
**polyamide** matrix)

IT Amines, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)  
(primary; electrostatic compn. based on **polyamide**  
matrix)

IT Amines, properties  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical

process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(secondary; electrostatic compn. based on polyamide matrix)

IT Amines, properties

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(tertiary; electrostatic compn. based on polyamide matrix)

IT 9003-56-9

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ABS rubber; electrostatic compn. based on polyamide matrix)

IT 9002-88-4

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(ULDPE; electrostatic compn. based on polyamide matrix)

IT 9011-52-3 24938-03-2 24938-10-1 25718-70-1

25722-07-0 27136-65-8 31726-54-2 50327-77-0

343776-38-5

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers; electrostatic compn. based on polyamide matrix)

IT 98-11-3D, Benzenesulfonic acid, alkyl derivs.

555-43-1, Glycerol tristearate 1323-83-7, Glycerol distearate

7782-42-5, Graphite, properties 9003-07-0,

Polypropylene 9008-66-6, Nylon 6.10 9010-77-9,

Acrylic acid-ethylene copolymer 9011-13-6, Styrene-maleic

anhydride copolymer 13983-17-0, Wollastonite 24937-16-4,

Nylon 12 24937-78-8, Ethylene-vinyl acetate copolymer

24938-56-5, Nylon 4 24938-70-3, Nylon 6T 24938-73-6,

Nylon 9T 25035-04-5, Nylon 11 25038-54-4, ASN 27

S, properties 25191-04-2, Nylon 6.12 25322-68-3D,

Polyethyleneglycol, alc. and amine derivs. 25668-34-2, Nylon 6I

25805-74-7, Nylon mxd 6 28757-63-3, Nylon 6.9

31566-31-1, Glycerol monostearate 32131-17-2, Technyl 27

A00, properties 32168-30-2, Nylon 6.18 50327-22-5, Nylon

4.6 106107-54-4D, SBS, sps 106677-58-1 211060-88-7, Nylon 6.36

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(electrostatic compn. based on polyamide matrix)

IT 9010-79-1D, maleated

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)



(ethylene-propylene rubber; electrostatic compn. based on  
polyamide matrix)

IT 9003-55-8, 694491-73-1 694491-73-1D, hydrogenated  
RL: CPS (Chemical process); PEP (Physical, engineering or chemical  
process); PRP (Properties); TEM (Technical or engineered material  
use); PROC (Process); USES (Uses)

(styrene-butadiene rubber; electrostatic compn. based on  
polyamide matrix)

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L75 ANSWER 8 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2005:96084 HCAPLUS

DOCUMENT NUMBER: 142:157409

TITLE: Biaxially stretched polyester film  
with high antistatic property for  
twist wrapping

INVENTOR(S): Yamamoto, Katsushi; Ueno, Hiroyuki; Oda,  
Hisanobu

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029593	A2	20050203	JP 2003-192953	200307 07
PRIORITY APPLN. INFO.: JP 2003-192953				200307 07

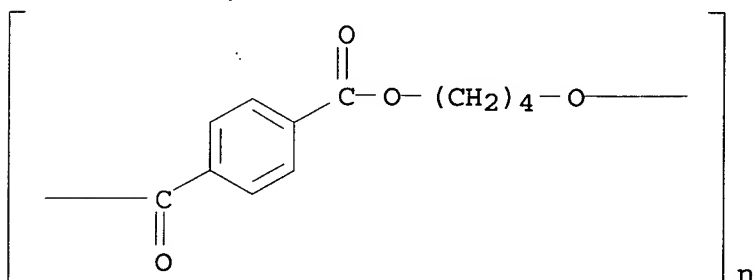
AB The film contains poly(ethylene terephthalate) 10-94, (co)  
polyesters having glass transition temp.  $\geq 35^\circ$   
5-50, and (co)polyesters having glass transition temp.  
 $\leq 34^\circ$  1-40% and friction coeff. 0.25-0.90, surface  
intrinsic resistivity  $1 + 10^7 - 1 + 10^{14}$  ( $\Omega/\text{box.}$ ).  
Thus, a mixt. contg. ethylene glycol-neopentyl glycol-terephthalic  
acid copolymer 35, Butanediol-terephthalic acid copolymer 10,  
poly(ethylene terephthalate) 55, and  $\text{SiO}_2$  0.02% was biaxially  
stretched to give a film, which was coated with Na alkylsulfonate to  
give a coated film showing good twisting property.

IT 24968-12-5P 26062-94-2P, Butanediol-terephthalic  
acid copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)

(film contg.; antistatic biaxially stretched polyester film three kinds of polyesters for twist wrapping)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

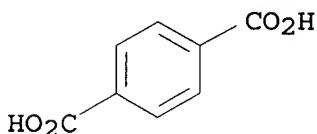
CMF C4 H10 O2

HO—(CH<sub>2</sub>)<sub>4</sub>—OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



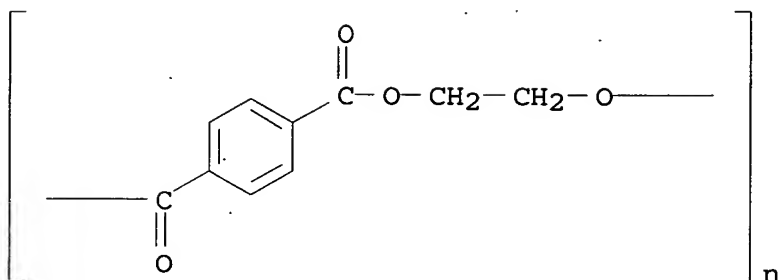
IT 25038-59-9, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(film contg.; antistatic biaxially stretched polyester film three kinds of polyesters for twist wrapping)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA

INDEX NAME)



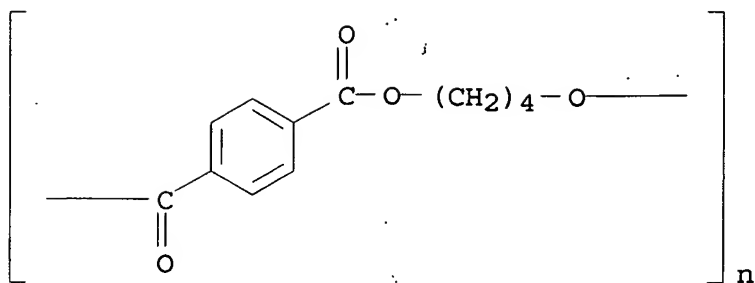
- IC ICM C08J005-18  
ICS C08L067-00
- CC 38-3 (Plastics Fabrication and Uses)
- ST twist wrapping biaxially stretched **polyester** film  
**antistatic**; butanediol terephthalic acid **polyester**  
film twist wrapping; ethylene glycol neopentyl glycol terephthalic  
acid **polyester** film; **polyethylene**  
**terephthalate** blend film twist wrapping
- IT **Sulfonic acids**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(alkanesulfonic, sodium salts, **antistatic** agent, film  
coated with; **antistatic** biaxially stretched  
**polyester** film three kinds of **polyesters** for  
twist wrapping)
- IT **Polyesters**, uses  
RL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)  
(**antistatic** biaxially stretched **polyester**  
film three kinds of **polyesters** for twist wrapping)
- IT Packaging materials  
(films, **antistatic**; **antistatic** biaxially  
stretched **polyester** film three kinds of  
**polyesters** for twist wrapping)
- IT 24968-12-5P 26062-94-2P, Butanediol-terephthalic  
acid copolymer 26780-49-4P, Ethylene glycol-neopentyl  
glycol-terephthalic acid copolymer  
RL: IMF (Industrial manufacture); TEM (Technical or engineered  
material use); PREP (Preparation); USES (Uses)  
(film contg.; **antistatic** biaxially stretched  
**polyester** film three kinds of **polyesters** for  
twist wrapping)
- IT 25038-59-9, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(film contg.; **antistatic** biaxially stretched  
**polyester** film three kinds of **polyesters** for  
twist wrapping)

L75 ANSWER 9 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

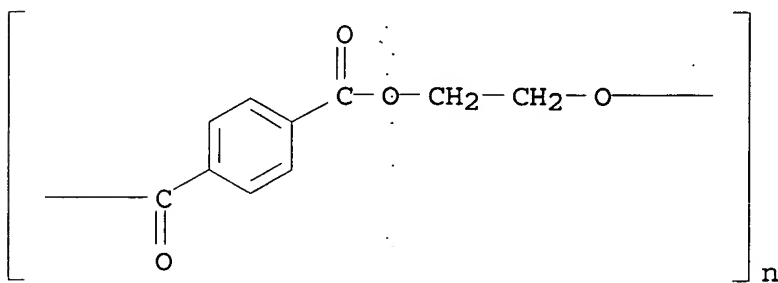
ACCESSION NUMBER: 2005:94029 HCAPLUS  
 DOCUMENT NUMBER: 142:157393  
 TITLE: Biaxially stretched **polyester** films  
 for twist wrapping  
 INVENTOR(S): Yamamoto, Katsushi; Ueno, Hiroyuki; Oda,  
 Hisanobu  
 PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005029592	A2	20050203	JP 2003-192952	200307 07
PRIORITY APPLN. INFO.: JP 2003-192952				200307 07

AB The films, useful for cellophane substitutes, consist of PET 10-94,  
**polyesters** and/or copolyesters having  $T_g \geq 35^\circ$   
 5-50, and **polyesters** and/or copolyesters with  $T_g$   
 $\leq 34^\circ$  1-40% and have friction coeff. 0.25-0.90. Thus,  
 terephthalic acid-ethylene glycol-neopentyl glycol copolymer ( $T_g$   
 75°) 35, terephthalic acid-butanediol copolymer ( $T_g$   
 30°) 10, and PET 55% were blended, mixed with 0.02% SiO<sub>2</sub>,  
 melt kneaded, extruded through a T-die, cast, stretched biaxially,  
 and heat-set to give a film, which was coated with Na alkyl  
 sulfonate. The film showed good twist retention, max. heat  
 shrinkage 2.5%, and residual stress 4.4%.  
 IT 24968-12-5, Butanediol-terephthalic acid copolymer, sru  
 25038-59-9, uses 26062-94-2, Butanediol-  
 terephthalic acid copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
 or engineered material use); USES (Uses)  
 (biaxially stretched **polyester** blend films for twist  
 wrapping)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

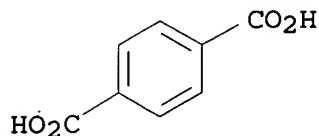
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08L067-02  
ICS B29C055-12; B65D065-02; B65D065-42; B29K067-00  
CC 38-3 (Plastics Fabrication and Uses)  
ST twist wrapping film **polyester** blend; PET PBT neopentyl glycol copolyester blend film cellophane substitute  
IT **Sulfonic acids, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(alkanesulfonic, sodium salts, **antistatic** coatings; biaxially stretched **polyester** blend films for twist wrapping)  
IT **Polyesters, uses**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(biaxially stretched **polyester** blend films for twist wrapping)  
IT Polymer blends  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(biaxially stretched **polyester** blend films for twist wrapping)  
IT Packaging materials  
(films; biaxially stretched **polyester** blend films for twist wrapping)  
IT 24968-12-5, Butanediol-terephthalic acid copolymer, sru 25038-59-9, uses 26062-94-2, Butanediol-terephthalic acid copolymer 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(biaxially stretched **polyester** blend films for twist wrapping)

L75 ANSWER 10 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:1035033 HCAPLUS  
DOCUMENT NUMBER: 142:24144  
TITLE: Method of **antistatic** conditioning thermoplastic polymer packaging materials  
INVENTOR(S): Anderheggen, Bernd; Schneider, Michael; Selbertinger, Josef  
PATENT ASSIGNEE(S): Ecolab Inc., USA  
SOURCE: Eur. Pat. Appl., 11 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 1481787	A1	20041201	EP 2003-11980	20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
WO 2004106036	A1	20041209	WO 2004-EP50908	20040525
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

## PRIORITY APPLN. INFO.:

EP 2003-11980

A

20030528

AB A method of conditioning thermoplastic polymer packages which are molded from thermoplastic preforms, comprises the steps of: (a) providing a soln. with 0.1 to 15.0 wt-% of an antistatic compn.; (b) contacting the thermoplastic preform with the antistatic compn. on the outer surface; (c) blow molding the molded package from the preform by a molding process directly after steps (a) and (b) or alternatively in a later sep. process step. This antistatic compn. is used as a soln. for the conditioning treatment of polyester molds and/or polyester preforms.

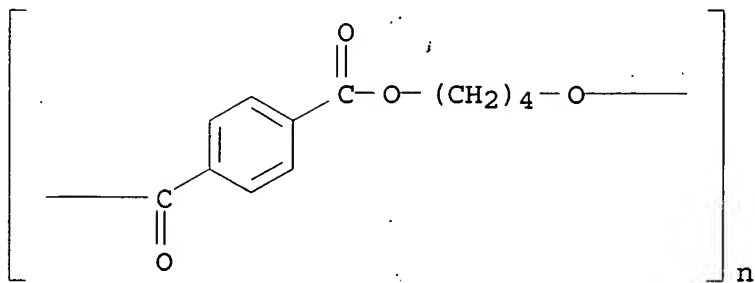
IT 24968-12-5, Poly(butylene terephthalate) 25038-59-9, uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

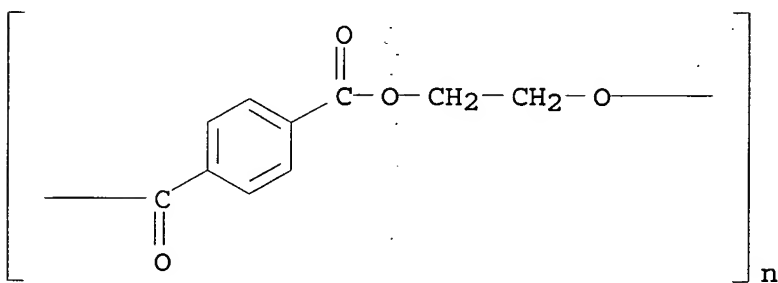
(antistatic conditioning of thermoplastic polymer packaging materials)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT 26062-94-2, Poly(butylene terephthalate)  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (assumed monomers; **antistatic** conditioning of thermoplastic polymer packaging materials)  
 RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

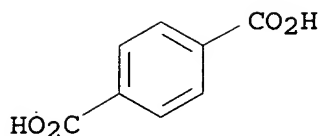
CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4





IC ICM B29C049-42  
ICS B29B011-14; C08J007-06; B29K067-00

CC 38-2 (Plastics Fabrication and Uses)

ST **antistatic** blow molded **polyester** packaging

IT **Sulfonic acids, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(C12-16-alkanesulfonic, sodium salts, conditioning agent;  
**antistatic** conditioning of thermoplastic polymer  
packaging materials)

IT **Sulfonic acids, uses**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(alkanesulfonic, **antistatic** agent; **antistatic**  
conditioning of thermoplastic polymer packaging materials)

IT **Antistatic agents**  
Bottles  
Packaging materials  
(**antistatic** conditioning of thermoplastic polymer  
packaging materials)

IT Polycarbonates, uses  
**Polyesters, uses**  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(**antistatic** conditioning of thermoplastic polymer  
packaging materials)

IT **Materials**  
(molded products, blow; **antistatic** conditioning of  
thermoplastic polymer packaging materials)

IT **Plastics, uses**  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(thermoplastics; **antistatic** conditioning of  
thermoplastic polymer packaging materials)

IT 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate  
1338-43-8, Sorbitan monooleate 9005-66-7, Polyoxyethylene sorbitan  
monopalmitate 9005-67-8, Polyoxyethylene sorbitan monostearate  
9005-70-3, Polyoxyethylene sorbitan trioleate 9005-71-4,  
Polyoxyethylene sorbitan tristearate 26266-57-9, Sorbitan  
palmitate 26658-19-5, Sorbitan tristearate  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**antistatic** agent; **antistatic** conditioning of  
thermoplastic polymer packaging materials)

IT 9002-86-2, Polyvinylchloride 9003-53-6, Polystyrene 24968-11-4,  
Poly(ethylene naphthalate) 24968-12-5, Poly(butylene  
terephthalate) 25038-59-9, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)

(antistatic conditioning of thermoplastic polymer packaging materials)

IT 25230-87-9 26062-94-2, Poly(butylene terephthalate)

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; antistatic conditioning of thermoplastic polymer packaging materials)

IT 9005-64-5, Tween 20 9005-65-6, Tween 80

RL: TEM (Technical or engineered material use); USES (Uses)  
(conditioning agent; antistatic conditioning of thermoplastic polymer packaging materials)

IT 64-18-6, Formic acid, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(preservative; antistatic conditioning of thermoplastic polymer packaging materials)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L75 ANSWER 11 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:898773 HCAPLUS

DOCUMENT NUMBER: 141:367113

TITLE: Stretched polyester packaging films  
with good twist-wrapping properties and  
dead-hold properties

INVENTOR(S): Imai, Kazumoto; Oda, Hisanobu

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004299231	A2	20041028	JP 2003-94557	20030331
PRIORITY APPLN. INFO.:				JP 2003-94557
				20030331

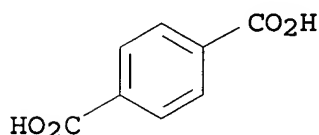
AB The invention relates to a film with surface resistivity  $\leq 1 + 10^{13} \Omega/\text{box}$ . consisting of (A) a polyester layer and (B) a laminate layer of compns. comprising cryst. polyesters and noncryst. polyesters at least on one side of A, suitable for automatic wrapping machines. Thus, a trilayer film comprising a core layer of poly(ethylene isophthalate) and surface layers of a blend of PET/terephthalic acid-ethylene

glycol-neopentyl glycol copolymer was stretched in the machine direction, coated with an anionic antistatic agent contg. dodecylsulfonate, stretched in the transverse direction, and heat-set to give a film showing surface resistivity  $1 + 10^{11}$   $\Omega$ /box. and twist retention degree  $\geq 240^\circ$  after twisted at 1.5 turns, comparable to that for cellophane of  $250^\circ$ .

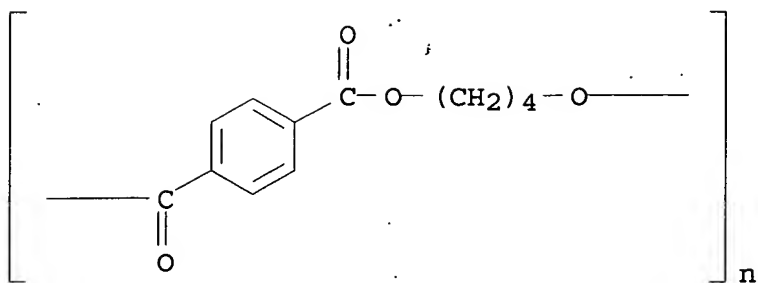
IT 26062-94-2, Poly(butylene terephthalate)  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (surface layer contg., assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)  
 RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

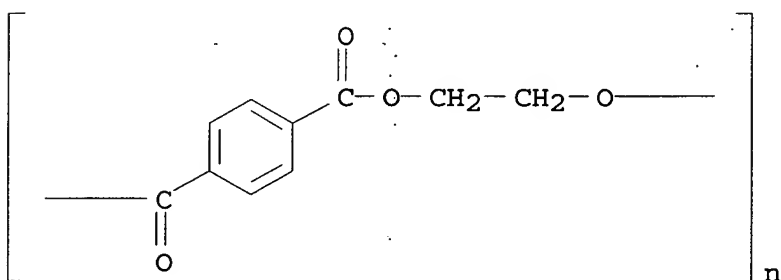
CM 2  
 CRN 100-21-0  
 CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate) 25038-59-9  
 , PET, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (surface layer contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B32B027-36  
 ICS B29C055-02; B29K067-00; B29L009-00  
 CC 38-3 (Plastics Fabrication and Uses)  
 ST **polyethylene** isophthalate PET neopentyl glycol laminate;  
 dodecylsulfonate **antistatic** multilayer **polyester**  
 packaging film; twist wrapping film **polyester** laminate  
 IT **Antistatic agents**  
 (alkyl anions; **polyester** laminated packaging films with  
 good twist-wrapping, dead-hold, and **antistatic**  
 properties)  
 IT Packaging materials  
 (laminated films; **polyester** laminated packaging films  
 with good twist-wrapping, dead-hold, and **antistatic**  
 properties)  
 IT Laminated plastic films  
 (**polyester** laminated packaging films with good  
 twist-wrapping, dead-hold, and **antistatic** properties)  
 IT **Polyesters, uses**  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)  
 (**polyester** laminated packaging films with good  
 twist-wrapping, dead-hold, and **antistatic** properties)  
 IT Polymer blends  
 RL: TEM (Technical or engineered material use); USES (Uses)

- (polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 1510-16-3D, Dodecylsulfonic acid, salts  
RL: TEM (Technical or engineered material use); USES (Uses)  
(antistatic coating contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26810-06-0, Ethylene glycol-isophthalic acid copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26948-62-9, Poly(ethylene isophthalate)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 26062-94-2, Poly(butylene terephthalate)  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(surface layer contg., assumed monomers; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)
- IT 24968-12-5, Poly(butylene terephthalate) 25038-59-9  
, PET, uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(surface layer contg.; polyester laminated packaging films with good twist-wrapping, dead-hold, and antistatic properties)

L75 ANSWER 12 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:633983 HCAPLUS  
DOCUMENT NUMBER: 141:157958  
TITLE: Antistatic polymer composition containing permanent and migratory antistatic additives  
INVENTOR(S): Chin, Hui; Fagouri, Christopher John  
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.; Ciba Sc Holding AG  
SOURCE: PCT Int. Appl., 35 pp.  
CODEN: PIXXD2  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

APL (X)

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004065471	A2	20040805	WO 2003-EP51077	200312

19

WO 2004065471 A3 20040923  
 W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,  
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,  
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,  
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,  
 MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,  
 SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN,  
 YU, ZA, ZM, ZW  
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,  
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,  
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
 MR, NE, SN, TD, TG

CA 2512664 AA 20040805 CA 2003-2512664

200312  
19

AU 2003303752 A1 20040813 AU 2003-303752

200312  
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EP 1585787 A2 20051019 EP 2003-809195

200312  
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EP 1585787 B1 20060614

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
 PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
 SK

CN 1742047 A 20060301 CN 2003-80109176

200312  
19

JP 2006513299 T2 20060420 JP 2004-566833

200312  
19

AT 329959 E 20060715 AT 2003-809195

200312  
19

US 2004171762 A1 20040902 US 2004-761821

200401  
21

PRIORITY APPLN. INFO.:

US 2003-442636P

P

200301  
24

WO 2003-EP51077

W

200312  
19

AB Polymer compns. comprises (A) a polymer substrate selected from the group consisting of the **polyolefins, polyesters, polyamides** and **polylactic acids** and (B) a combination of (I) at least one permanent **antistatic** additive selected from the group consisting of the **polyetheresteramides** and (II)

at least one migratory antistatic additive selected from the group consisting of the alkylsulfonic acid salts, the alkyl diethanolamines and the alkyl diethanolamides, are effectively antistatic. The polymer substrate is polyethylene, polypropylene, ethylene-propylene copolymer, polyethylene terephthalate, polybutylene terephthalate, polyethylene naphthalate, polyamide 4, polyamide 6, polyamide 6,6, polyamide 6,10, polyamide 6,9, polyamide 6,12, polyamide 4,6, polyamide 12,12, polyamide 11, polyamide 12 and polylactic acid. Thus, polypropylene was blended with 1% sodium C10-18-alkanesulfonates and 4% azacyclotridecan-2-one-hexanedioic acid- $\alpha$ -hydro- $\omega$ -hydroxypoly(oxy-1,2-ethanediyl) copolymer for 10-20 min. The mixts. are then extruded at 390-410° to give antistatic polypropylene film, showing static decay time after 4 wk of 0.05 s.

IT 9011-52-3 9020-32-0 24968-97-6  
26062-94-2 26098-55-5 27136-65-8  
36497-34-4 50327-77-0

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)

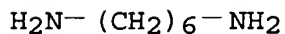
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 124-09-4

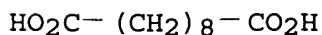
CMF C6 H16 N2



CM 2

CRN 111-20-6

CMF C10 H18 O4



RN 9020-32-0 HCAPLUS

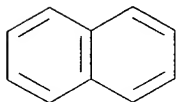
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [ D1- CO<sub>2</sub>H ]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

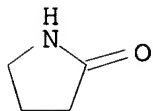
RN 24968-97-6 HCAPLUS

CN 2-Pyrrolidinone, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 616-45-5

CMF C4 H7 N O



RN 26062-94-2 HCAPLUS

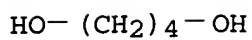
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4



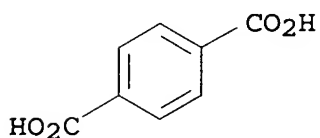
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



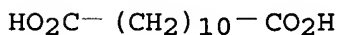
RN 26098-55-5 HCAPLUS

CN Dodecanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

CM 1

CRN 693-23-2

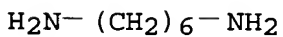
CMF C12 H22 O4



CM 2

CRN 124-09-4

CMF C6 H16 N2



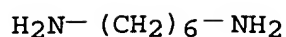
RN 27136-65-8 HCAPLUS

CN Nonanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

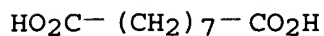
CM 1

CRN 124-09-4

CMF C6 H16 N2



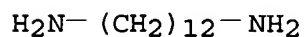
CM 2

CRN 123-99-9  
CMF C9 H16 O4

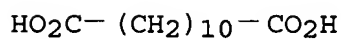
RN 36497-34-4 HCAPLUS

CN Dodecanedioic acid, polymer with 1,12-dodecanediamine (9CI) (CA  
INDEX NAME)

CM 1

CRN 2783-17-7  
CMF C12 H28 N2

CM 2

CRN 693-23-2  
CMF C12 H22 O4

RN 50327-77-0 HCAPLUS

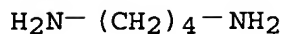
CN Hexanedioic acid, polymer with 1,4-butanediamine (9CI) (CA INDEX  
NAME)

CM 1

CRN 124-04-9  
CMF C6 H10 O4

CM 2

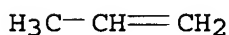
CRN 110-60-1  
CMF C4 H12 N2



IT 25085-53-4, **Isotactic polypropylene**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(fibers; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)  
RN 25085-53-4 HCAPLUS  
CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

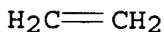
CRN 115-07-1  
CMF C3 H6



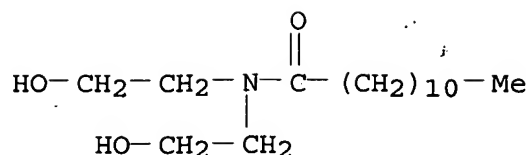
IT 9002-88-4, **Polyethylene**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(low d.; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)  
RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

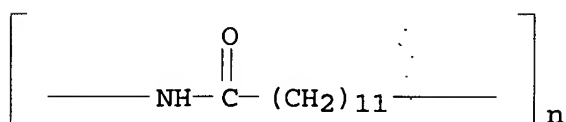
CRN 74-85-1  
CMF C2 H4



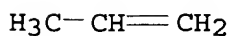
IT 120-40-1, **Lauroyl diethanolamide**  
RL: MOA (Modifier or additive use); USES (Uses)  
(migratory **antistatic** agent; prodn. of **antistatic** polymer compn. contg. permanent and migratory **antistatic** additives)  
RN 120-40-1 HCAPLUS  
CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 24937-16-4, Poly[imino(1-oxo-1,12-dodecanediyl)]  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (permanent antistatic agent; prodn. of  
 antistatic polymer compn. contg. permanent and migratory  
 antistatic additives)  
 RN 24937-16-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)



IT 9003-07-0, Polypropylene  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
 or engineered material use); USES (Uses)  
 (prodn. of antistatic polymer compn. contg. permanent  
 and migratory antistatic additives)  
 RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 115-07-1  
 CMF C3 H6



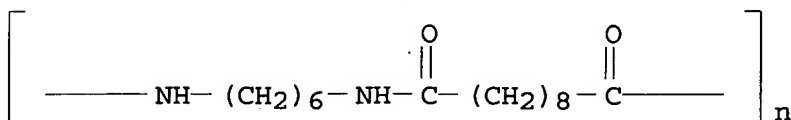
IT 9008-66-6, Polyamide 610 9010-79-1,  
 Ethylene-propylene copolymer  
 9020-73-9, Polyethylene naphthalate  
 24936-74-1 24938-56-5, Polyamide  
 4 24968-12-5, Polybutylene  
 terephthalate 25038-54-4, Polyamide  
 6, uses 25038-59-9, Polyethylene  
 terephthalate, uses 28757-63-3, Polyamide  
 69 32131-17-2, Polyamide 66, uses  
 36348-71-7, Polyamide 1212 50327-22-5,  
 Polyamide 46  
 RL: POF (Polymer in formulation); TEM (Technical or engineered

material use); USES (Uses)

(prodn. of antistatic polymer compn. contg. permanent  
and migratory antistatic additives)

RN 9008-66-6 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)  
(CA INDEX NAME)



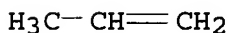
RN 9010-79-1 HCAPLUS

CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

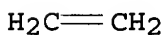
CMF C3 H6



CM 2

CRN 74-85-1

CMF C2 H4



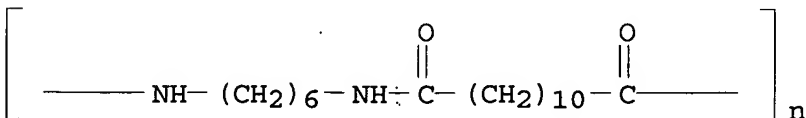
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

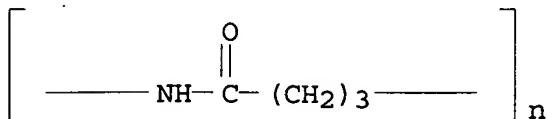
RN 24936-74-1 HCAPLUS

CN Poly[imino-1,6-hexanediylimino(1,12-dioxo-1,12-dodecanediyl)] (9CI)  
(CA INDEX NAME)



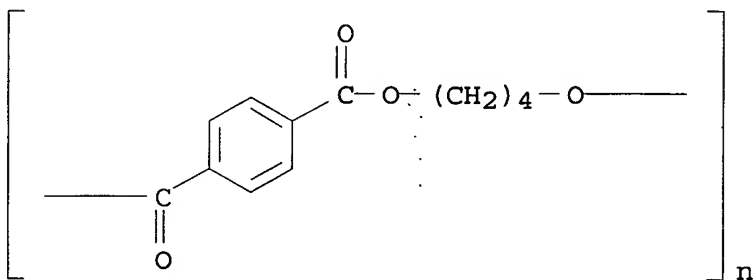
RN 24938-56-5 HCAPLUS

CN Poly[imino(1-oxo-1,4-butanediyl)] (9CI) (CA INDEX NAME)



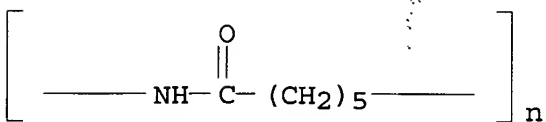
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



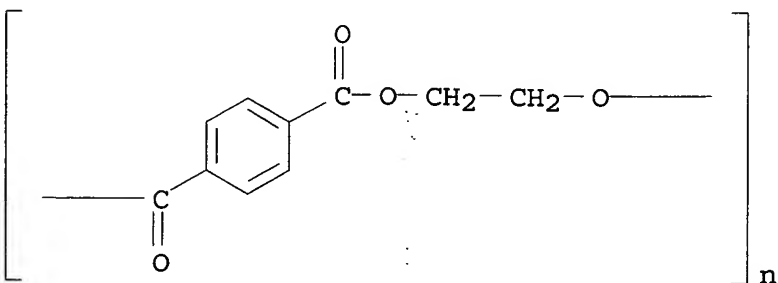
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

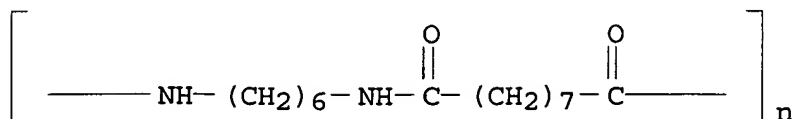


RN 25038-59-9 HCAPLUS

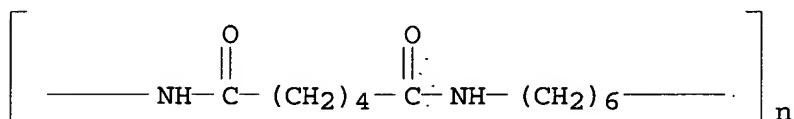
CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



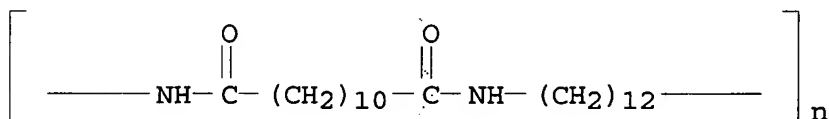
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 CN Poly[imino-1,6-hexanediylimino(1,9-dioxo-1,9-nonanediyl)] (9CI) (CA INDEX NAME)



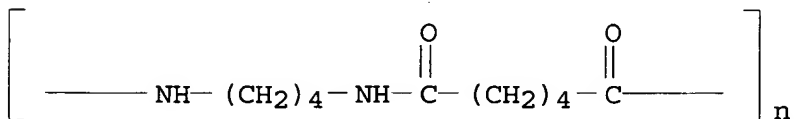
RN 32131-17-2 HCAPLUS  
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



RN 36348-71-7 HCAPLUS  
 CN Poly[imino(1,12-dioxo-1,12-dodecanediyl)imino-1,12-dodecanediyl] (9CI) (CA INDEX NAME)



RN 50327-22-5 HCAPLUS  
 CN Poly[imino-1,4-butanediylimino(1,6-dioxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IC ICM C08K005-42  
 ICS C08K005-17; C08K005-20  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38, 40  
 ST antistatic compn contg polymer substrate additive  
 polyetheresteramide  
 IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)

- (C10-18-alkanesulfonic, sodium salts, migratory antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT Antistatic agents  
Plastic films  
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT Polyamides, uses  
Polyesters, uses  
Polyolefins  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT Polypropene fibers, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 26100-51-6, Polylactic acid  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 9011-52-3 9020-32-0 24968-97-6  
26062-94-2 26098-55-5 27136-65-8  
36497-34-4 50327-77-0  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(assumed monomers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 25085-53-4, Isotactic polypropylene  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(fibers; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 9002-88-4, Polyethylene  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(low d.; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 120-40-1, Lauroyl diethanolamide  
RL: MOA (Modifier or additive use); USES (Uses)  
(migratory antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)
- IT 7791-07-3 24937-16-4, Poly[imino(1-oxo-1,12-dodecanediyl)]  
25038-74-8 70290-02-7  
RL: MOA (Modifier or additive use); USES (Uses)  
(permanent antistatic agent; prodn. of antistatic polymer compn. contg. permanent and migratory antistatic additives)



IT 9003-07-0, Polypropylene 26023-30-3,  
Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)]  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(prodn. of antistatic polymer compn. contg. permanent  
and migratory antistatic additives)

IT 9008-66-6, Polyamide 610 9010-79-1,  
Ethylene-propylene copolymer  
9020-73-9, Polyethylene naphthalate  
24936-74-1 24938-56-5, Polyamide  
4 24968-12-5, Polybutylene  
terephthalate 25038-54-4, Polyamide  
6, uses 25038-59-9, Polyethylene  
terephthalate, uses 28757-63-3, Polyamide  
69 32131-17-2, Polyamide 66, uses  
36348-71-7, Polyamide 1212 50327-22-5,  
Polyamide 46  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(prodn. of antistatic polymer compn. contg. permanent  
and migratory antistatic additives)

L75 ANSWER 13 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:606495 HCAPLUS

DOCUMENT NUMBER: 141:141503

TITLE: Heat-shrinking abrasion-resistant  
polyester films

INVENTOR(S): Inagaki, Kyoko; Hayakawa, Satoshi; Hashimoto,  
Masatoshi; Tabota, Norimi; Oda, Naonobu

PATENT ASSIGNEE(S): Toyo Boseki Kabushiki Kasisha, Japan

SOURCE: PCT Int. Appl., 35 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2004063255	A1	20040729	WO 2003-JP16650	200312 24
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,			

DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,  
SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,  
MR, NE, SN, TD, TG

AU 2003292769	A1	20040810	AU 2003-292769	200312 24
EP 1582556	A1	20051005	EP 2003-768189	200312 24
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
CN 1729235	A	20060201	CN 2003-80107243	200312 24
US 2006063008	A1	20060323	US 2005-539478	200506 22
PRIORITY APPLN. INFO.:			JP 2002-372651	A 200212 24
			JP 2003-31353	A 200302 07
			JP 2003-94556	A 200303 31
			WO 2003-JP16650	W 200312 24

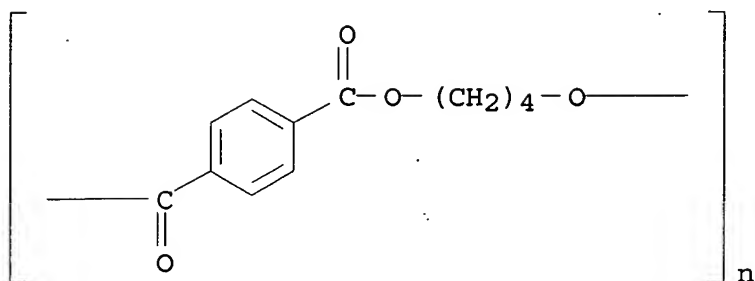
AB The films exhibit a coeff. of dynamic friction between surfaces on  
≥1 side thereof ( $\mu_d$ ) of ≤0.27 and range (R) of  
≤0.05 and further exhibit a wt. loss, resulting from ten  
reciprocations of friction on the surface under a load of 400 g in a  
friction test conducted by means of a tester of dyed product  
fastness to rubbing having a friction member fitted with a sand  
paper of #1000 grain diam., of ≤0.24 g/m<sup>2</sup>. The films showed  
good sliding property when used as labels of beverage bottles in  
vending machines.

IT 24968-12-5, Polybutylene terephthalate  
25038-59-9, PET polyester, uses 26062-94-2  
, Polybutylene terephthalate  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(heat-shrinking polyester films with good abrasion  
resistance and sliding property for labels)

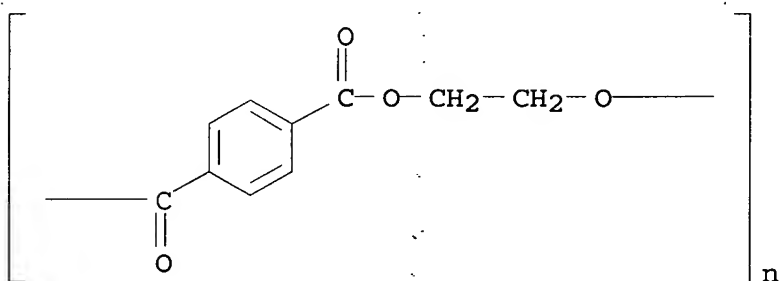
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA

INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 110-63-4

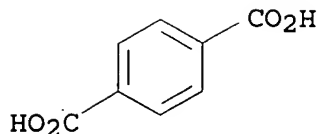
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 9002-88-4, Polyethylene

RL: TEM (Technical or engineered material use); USES (Uses)  
 (waxes, Hytec E 4BS, Hytec E 8237, lubricant coatings for labels;  
 heat-shrinking polyester films with good abrasion  
 resistance and sliding property for labels)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4



IC ICM C08J007-04

ICS B29C061-06; B32B027-36; C08J005-18

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 42

ST vending machine beverage bottle label heat shrinking  
 polyester film; abrasion resistance heat shrink  
 polyester label

IT Bottles

(beverage; heat-shrinking polyester films with good  
 abrasion resistance and sliding property for labels)

IT Polyester rubber

RL: TEM (Technical or engineered material use); USES (Uses)  
 (butanediol-caprolactone-terephthalic acid; heat-shrinking  
 polyester films with good abrasion resistance and sliding  
 property for labels)

IT Polyurethanes, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
 (coatings for labels; heat-shrinking polyester films  
 with good abrasion resistance and sliding property for labels)

IT Coating materials

Heat-shrinkable films

Labels

Lubricants

(heat-shrinking polyester films with good abrasion  
 resistance and sliding property for labels)

IT Polyesters, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
 or engineered material use); USES (Uses)

- (heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT Hydrocarbon waxes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(microcryst., Nopco 1245M-SN; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT Polymer blends  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(**polyester**; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 98-11-3D, **Benzenesulfonic acid**, alkyl derivs., sodium salt 188070-73-7, TB 702 188364-69-4, TB 214 727423-13-4, Invadiile BCN  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**antistatic** agent; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 154453-08-4, Vylonal TIE 51 350030-51-2, Hydran HW 345  
RL: TEM (Technical or engineered material use); USES (Uses)  
(coatings for labels; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 24968-12-5, **Polybutylene terephthalate**  
25038-59-9, PET **polyester**, uses 25038-91-9, 1,4-Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer 26062-94-2, **Polybutylene terephthalate** 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 742096-90-8, Hytec E 9015  
RL: TEM (Technical or engineered material use); USES (Uses)  
(lubricant coatings for labels; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 9003-53-6, G 797N  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(**polyester** blends; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 50276-37-4, 1,4-Butanediol-caprolactone-terephthalic acid copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(rubber; heat-shrinking **polyester** films with good abrasion resistance and sliding property for labels)
- IT 9002-88-4, **Polyethylene**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(waxes, Hytec E 4BS, Hytec E 8237, lubricant coatings for labels; heat-shrinking **polyester** films with good abrasion

resistance and sliding property for labels)

L75 ANSWER 14 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 2004:569969 HCAPLUS  
 DOCUMENT NUMBER: 141:124551  
 TITLE: Light diffusion polyester resin composition  
 INVENTOR(S): Kang, Chung-seock; Kim, Dae-jin; Kim, Young-bum  
 PATENT ASSIGNEE(S): Kolon Industries Inc., S. Korea  
 SOURCE: PCT Int. Appl., 16 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004058889	A1	20040715	WO 2003-KR902	20030507
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
KR 2004060696	A	20040706	KR 2003-9335	20030214
TW 225878	B1	20050101	TW 2003-92110115	20030430
AU 2003223143	A1	20040722	AU 2003-223143	20030507
CN 1659230	A	20050824	CN 2003-813637	20030507
EP 1576052	A1	20050921	EP 2003-719258	20030507
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006503975	T2	20060202	JP 2005-509756	

US 2006100322 A1 20060511 US 2005-515977 200305  
07  
PRIORITY APPLN. INFO.: KR 2002-84729 A 200508  
10  
200212  
27  
KR 2003-9335 A 200302  
14  
WO 2003-KR902 W 200305  
07

AB A light diffusion resin compn. is composed of 100 parts polyester resin selected from poly(ethyleneterephthalate-co-dimethylcyclohexyl terephthalate), PET, PBT, and PEN, 0.1-15 parts light diffuser particles comprising 50-100 mol% PMMA and <50 mol% polystyrene, which have an av. particle of 5-200  $\mu$ m, 0.3-5 parts antistatic agent selected from C2-50 tetra-alkyl or tetra-aryl-ammonium salt, C2-30 alkyl or aryl sulfonate, C2-30 alkyl or aryl phosphate, C2-30 alkyl or aryl betaine, and C2-30 glycerol esters, and 0.001-0.1 part optical brightener selected from benzotriazole-phenylcoumarin, bisbenzoxazole, triazine-phenylcoumarins, bis(styryl)biphenyls, and naphthotriazole-phenylcoumarin. Thus, amorphous poly(ethyleneterephthalate-co-dimethylcyclohexyl terephthalate) 100, light diffusion resin, PMMA/polystyrene bead (MPB X 10), 1.5, sodium dodecylsulfonate 1.0, and bis(styryl)biphenyl 0.005 parts were melting mixed to receive a light diffusion polyester compn. with a haze of 93 % and a light transmittance of 86 %.

IT 9020-32-0 26062-94-2

RL: POF (Polymer in formulation); USES (Uses)  
(assumed monomers; light diffusion polyester resin compn.)

RN 9020-32-0 HCAPLUS:

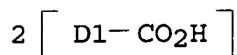
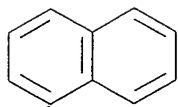
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

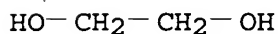
CCI IDS



CM 2

CRN 107-21-1

CMF C2 H6 O2



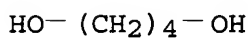
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

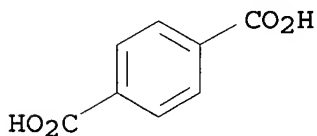
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4

IT 9020-73-9, Polyethylenenaphthalate 24968-12-5, PBT  
25038-59-9, PET polymer, usesRL: POF (Polymer in formulation); USES (Uses)  
(light diffusion polyester resin compn.)

RN 9020-73-9 HCAPLUS

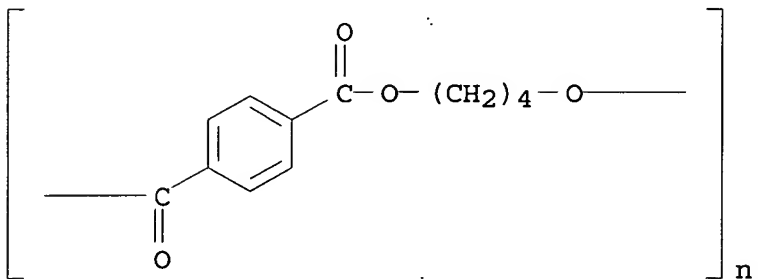


CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

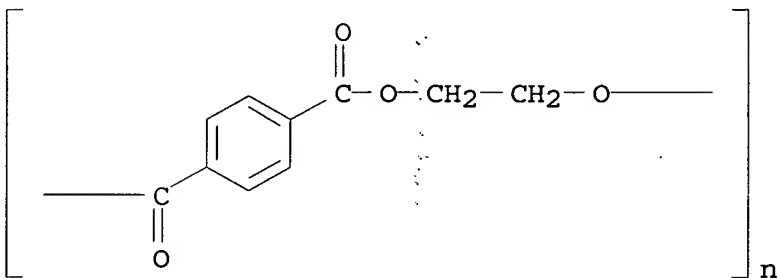
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IC ICM C08L067-00

ICS C08L033-12; G02B001-04

CC 37-6 (Plastics Manufacture and Processing)

ST polyethyleneterephthalatedimethylcyclohexylterephthalate PMMA

polystyrene sodium dodecylsulfonate bisstyrylbiphenyl

polyester compn

IT Phosphates, uses

RL: MOA (Modifier or additive use); USES (Uses)

(C2-30 alkyl or aryl; light diffusion polyester resin  
compn.)

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)

(alkanesulfonic, salts, C2-30; light diffusion polyester  
resin compn.)

IT Betaines

RL: MOA (Modifier or additive use); USES (Uses)

- (alkyl, C2-30; light diffusion polyester resin compn.)
- IT Sulfonic acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(arenesulfonic, salts, C2-30; light diffusion polyester resin compn.)
- IT Polymer blends  
RL: POF (Polymer in formulation); USES (Uses)  
(beads; light diffusion polyester resin compn.)
- IT Polyesters, uses  
RL: POF (Polymer in formulation); USES (Uses)  
(light diffusion polyester resin compn.)
- IT Aromatic compounds  
RL: MOA (Modifier or additive use); USES (Uses)  
(sulfonates, C2-30; light diffusion polyester resin compn.)
- IT Quaternary ammonium compounds, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tetra-alkyl or tetra-aryl; light diffusion polyester resin compn.)
- IT 9020-32-0 26062-94-2  
RL: POF (Polymer in formulation); USES (Uses)  
(assumed monomers; light diffusion polyester resin compn.)
- IT 9003-53-6, Polystyrene  
RL: POF (Polymer in formulation); USES (Uses)  
(blend with PMMA, bead; light diffusion polyester resin compn.)
- IT 9011-14-7, PMMA  
RL: POF (Polymer in formulation); USES (Uses)  
(blend, bead, MPB-X 12; light diffusion polyester resin compn.)
- IT 955-10-2D, 3-Phenylcoumarin, benzotriazolyl, naphthotriazolyl and triazinyl derivs. 2386-53-0, Sodium dodecylsulfonate 4061-32-9 7210-07-3, 2,2'-Bibenzoxazole  
RL: MOA (Modifier or additive use); USES (Uses)  
(light diffusion polyester resin compn.)
- IT 9020-73-9, Polyethylenenaphthalate 24968-12-5, PBT 25038-59-9, PET polymer, uses 721883-19-8 722495-67-2, Diasphere MPB-X 10  
RL: POF (Polymer in formulation); USES (Uses)  
(light diffusion polyester resin compn.)

L75 ANSWER 15 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:391332 HCAPLUS

DOCUMENT NUMBER: 140:392062

TITLE: Rotary electronic parts with good heat and impact resistance

INVENTOR(S): Kono, Mari; Sato, Mitsunobu

PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004137348	A2	20040513	JP 2002-302208	20021016

PRIORITY APPLN. INFO.: JP 2002-302208  
 20021016

AB Title electronic parts comprise (A) thermoplastic **polyesters** 40-65, (B) polycarbonates 30-45, and (C) **antistatic** agents 5-15%. The parts are useful for tape-type recording media, optical disk bearings, etc. Thus, a compn. contg. poly(butylene terephthalate), bisphenol A-phosgene copolymer, and PLST (polyamide-polyester-polyether) was extruded and injection molded to give a test piece showing intrinsic surface resistivity  $20.0 \pm 10^{12} \Omega$  after 24 h at 23° and relative humidity 50%, Izod impact strength 52.7 J/m, and heat distortion temp. 123.8°.

IT 26062-94-2  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (assumed monomers; rotary electronic parts with good antistatic property and high heat and impact resistance)

RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

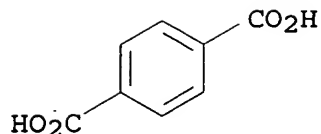
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

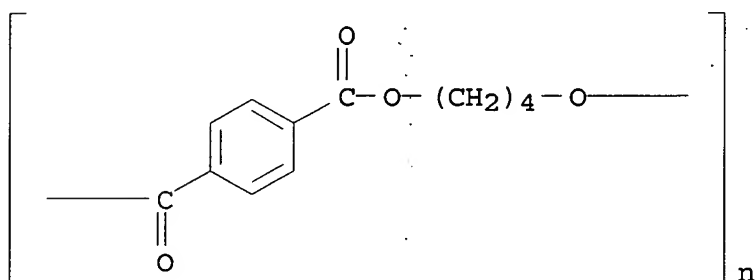
HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate)  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (rotary electronic parts with good antistatic property and high heat and impact resistance)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08J005-00  
 ICS C08L067-00; C08L069-00; C08L077-12; G11B023-087  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 74, 76, 77  
 ST polyester polycarbonate antistatic rotary electronic part; impact resistance polyester polycarbonate rotary electronic part; heat resistance polyester polycarbonate rotary electronic part; tape hub polyester polycarbonate antistatic property  
 IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (C14-17-sec-alkanesulfonic, sodium salts, SAS 93, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)  
 IT Impact-resistant materials  
 (heat-resistant; rotary electronic parts with good antistatic property and high heat and impact resistance)  
 IT Magnetic tapes  
 (hubs for; rotary electronic parts with good antistatic property and high heat and impact resistance)  
 IT Heat-resistant materials  
 (impact-resistant; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyamide-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyamide-polyester-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyesters, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyamide-polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyester-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyamides, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyester-polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polyamides, uses  
Polyesters, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(polyether-, antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Antistatic agents  
Antistatic materials  
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polycarbonates, uses  
Polyesters, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT Polymer blends  
RL: TEM (Technical or engineered material use); USES (Uses)  
(rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 688048-10-4, PLST

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(antistatic agents; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 26062-94-2

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(assumed monomers; rotary electronic parts with good antistatic property and high heat and impact resistance)

IT 24936-68-3, Bisphenol A-phosgene copolymer, sru, uses

24968-12-5, Poly(butylene terephthalate) 25971-63-5, Bisphenol A-phosgene copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(rotary electronic parts with good antistatic property and high heat and impact resistance)

L75 ANSWER 16 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:252700 HCAPLUS

DOCUMENT NUMBER: 140:272301

TITLE: Preparation of static spunbonded nonwoven fabrics

INVENTOR(S): Ortega, Albert E.

PATENT ASSIGNEE(S): Cerex Advanced Fabrics, Inc., USA

SOURCE: PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004025004	A1	20040325	WO 2003-US28909	20030915
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003272396	A1	20040430	AU 2003-272396	20030915

US 2004121679 A1 20040624 US 2003-662492 200309  
15  
EP 1537260 A1 20050608 EP 2003-754576 200309  
15  
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,  
PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU,  
SK  
JP 2005539152 T2 20051222 JP 2004-536332 200309  
15  
PRIORITY APPLN. INFO.: US 2002-410557P P 200209  
13  
WO 2003-US28909 W 200309  
15

AB A spunbonded nonwoven fabric with high uniformity and reduced defects is prepd. by: (1) forming a melt blend contg. at least one polymer, such as nylon, polyester, and polyethylene, and at least one antistatic agent, such as saccharine, quaternary ammonium salt, and ethylene oxide copolymer, (2) extruding the blend in the form of plurality of filaments, (3) directing the filaments through a slot or jet attenuation device and drawing the filaments to orient them, (4) depositing the filaments onto a collection surface to form web and bonding the filaments of the web. Thus, an antistatic additive (PTSS 1378) comprising polycaprolactam, sulfonic acids, C10-18 alkane, and sodium salt, was mixed with nylon 66 and spun using a slot pilot line to receive antistatic filaments.

IT 9011-52-3 26062-94-2, Polybutylene terephthalate 26098-55-5

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers, fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

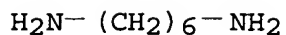
RN 9011-52-3 HCAPLUS

CN Decanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX NAME)

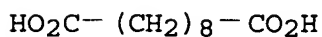
CM 1

CRN 124-09-4

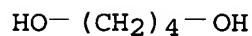
CMF C6 H16 N2



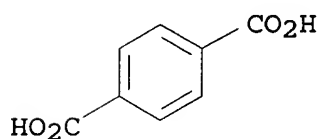
CM 2

CRN 111-20-6  
CMF C10 H18 O4RN 26062-94-2 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)

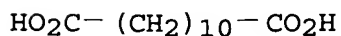
CM 1

CRN 110-63-4  
CMF C4 H10 O2

CM 2

CRN 100-21-0  
CMF C8 H6 O4RN 26098-55-5 HCAPLUS  
CN Dodecanedioic acid, polymer with 1,6-hexanediamine (9CI) (CA INDEX  
NAME)

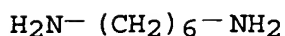
CM 1

CRN 693-23-2  
CMF C12 H22 O4

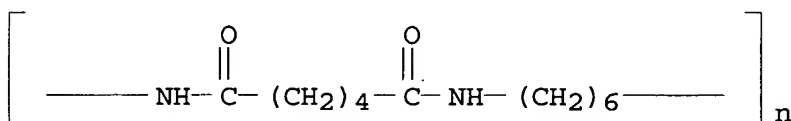


CM 2

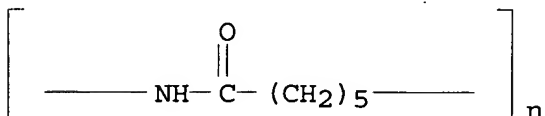
CRN 124-09-4  
CMF C6 H16 N2



IT 32131-17-2, Nylon 66, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)  
 RN 32131-17-2 HCAPLUS  
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA INDEX NAME)



IT 25038-54-4, Nylon 6, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)  
 RN 25038-54-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 9002-88-4, Polyethylene 9008-66-6, Nylon  
 610 24936-74-1, Nylon 612 24937-16-4, Nylon 12  
 24968-12-5, Polybutylene terephthalate  
 25035-04-5, Nylon 11 25085-53-4, Isotactic polypropylene  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

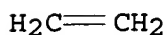
(fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

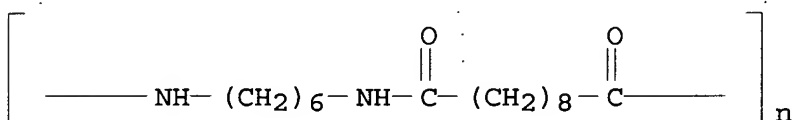
CM 1

CRN 74-85-1

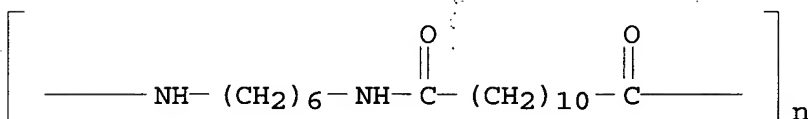
CMF C2 H4



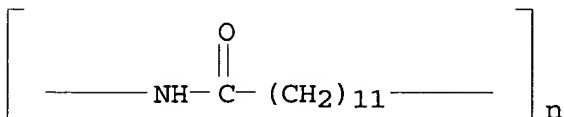
RN 9008-66-6 HCAPLUS  
CN Poly[imino-1,6-hexanediylimino(1,10-dioxo-1,10-decanediyl)] (9CI)  
(CA INDEX NAME)



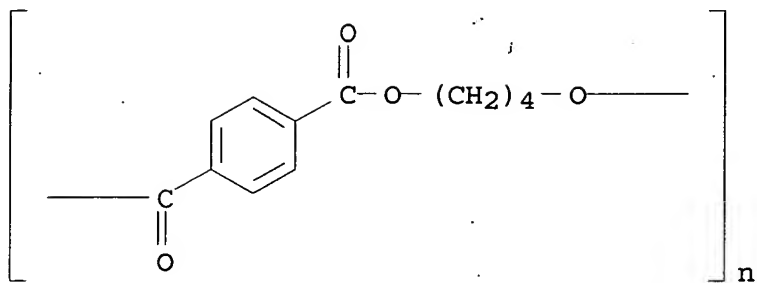
RN 24936-74-1 HCAPLUS  
CN Poly[imino-1,6-hexanediylimino(1,12-dioxo-1,12-dodecanediyl)] (9CI)  
(CA INDEX NAME)



RN 24937-16-4 HCAPLUS  
CN Poly[imino(1-oxo-1,12-dodecanediyl)] (9CI) (CA INDEX NAME)

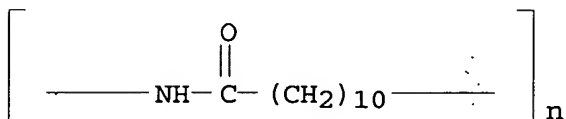


RN 24968-12-5 HCAPLUS  
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25035-04-5 HCAPLUS

CN Poly[imino(1-oxo-1,11-undecanediy)] (9CI) (CA INDEX NAME)



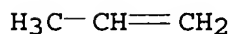
RN 25085-53-4 HCAPLUS

CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6



IC ICM D01F001-09

ICS D01F006-60; D01F008-12; D04H003-12

CC 40-10 (Textiles and Fibers)

ST nylon 66 polycaprolactam sulfonic acid

antistatic spunbonded nonwoven fabrics

IT Polyamide fibers, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(66; prepn. of static spunbonded nonwoven fabrics)

IT Polyamide fibers, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(6; prepn. of static spunbonded nonwoven fabrics)

IT Crown ethers

Polyethers, uses

Polysulfides

- Quaternary ammonium compounds, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Sulfamides  
RL: MOA (Modifier or additive use); USES (Uses)  
(arom., antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Halohydrins  
RL: MOA (Modifier or additive use); USES (Uses)  
(epihalohydrins, polymers, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Polyolefin fibers  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(ethylene, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Polyamides, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT Polyamides, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(lactic acid, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Heterocyclic compounds  
RL: MOA (Modifier or additive use); USES (Uses)  
(nitrogen, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Acrylic fibers, uses  
Polyamide fibers, uses  
Polyester fibers, uses  
Polypropene fibers, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

- (poly(tetramethylene terephthalate), nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyamines, nonpolymeric, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Alcohols, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyhydric, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Imines  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyimines, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Phosphines  
RL: MOA (Modifier or additive use); USES (Uses)  
(polymers, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT Antistatic agents  
Nonwoven fabrics  
(prepn. of static spunbonded nonwoven fabrics)
- IT Polyester fibers, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(terephthalic acid-trimethylene glycol, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT Amines, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(tertiary, antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT 75-21-8D, Ethylene oxide, polymers 81-07-2, Saccharine  
100-42-5D, Styrene, polymers 110-86-1D, Pyridine, polymers  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent; prepn. of static spunbonded nonwoven fabrics)
- IT 9011-52-3 25038-74-8 25587-80-8 26062-94-2,  
Polybutylene terephthalate 26098-55-5  
26100-51-6, Polylactic acid 26590-75-0, Polytrimethylene  
terephthalate  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(assumed monomers, fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)
- IT 32131-17-2, Nylon 66, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(fiber, bicomponent with nylon 6 fiber, nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)
- IT 25038-54-4, Nylon 6, uses

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, bicomponent with nylon 66 fiber nonwoven fabric; prepn. of static spunbonded nonwoven fabrics)

IT 9002-88-4, Polyethylene 9008-66-6, Nylon  
610 24936-74-1, Nylon 612 24937-16-4, Nylon 12  
24968-12-5, Polybutylene terephthalate  
25035-04-5, Nylon 11 25085-53-4, Isotactic

polypropylene 26023-30-3, Poly[oxy(1-methyl-2-oxo-1,2-ethanediyl)] 26546-03-2, Polytrimethylene terephthalate

RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(fiber, nonwoven fabrics; prepn. of static spunbonded nonwoven fabrics)

IT 7440-44-0, Carbon, uses

RL: MOA (Modifier or additive use); USES (Uses)

(particles, antistatic agent; prepn. of static spunbonded nonwoven fabrics)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L75 ANSWER 17 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:249767 HCAPLUS

DOCUMENT NUMBER: 140:288459

TITLE: Polyester composition and cap made of  
the composition for circular fluorescent lamp  
INVENTOR(S): Onda, Kayoko; Ameya, Yoshinori; Sato, Mitsunobu  
PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004091639	A2	20040325	JP 2002-254823	200208 30

PRIORITY APPLN. INFO.: JP 2002-254823

200208  
30

AB The compn. contains 5-20 parts of an amorphous arom. polycarbonate,  
20-80 parts of a halogenated compd. free from terminal halogen as a  
fireproofing agent, 80-130 parts of a polyester, 0.1-3  
parts of a UV absorber, 0.01-5 parts of a fluoropolymer, 0.5-10

parts of an antistatic agent, and 1-15 parts of a Sb-type fireproofing aid. The cap for a circular fluorescent lamp is that made of the compn. showing high light transmission and discoloration prevention. Thus, poly(butylene terephthalate) 110, polycarbonate (ML 5221) 10, antistatic agent (SAS 93) 4, fireproofing agent (ML 4365) 60, fluoropolymer (TSAN) 0.3, Sb<sub>2</sub>O<sub>3</sub> (SHLB 80) 10, UV absorber (UV 5411) 0.5, and a thermal stabilizer (ANOX 20) 0.2 part were mixed and molded to give test pieces showing UL-94 flame retardance V-0, surface resistivity  $6 + 10^{12} \Omega/\text{cm}^2$ , and total light transmittance 12%.

IT 26062-94-2, Poly(butylene terephthalate)  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(assumed monomers; **polyester** compn. for cap for circular fluorescent lamp showing discoloration prevention)

RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

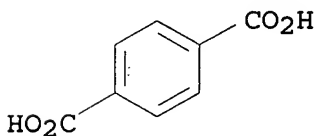
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

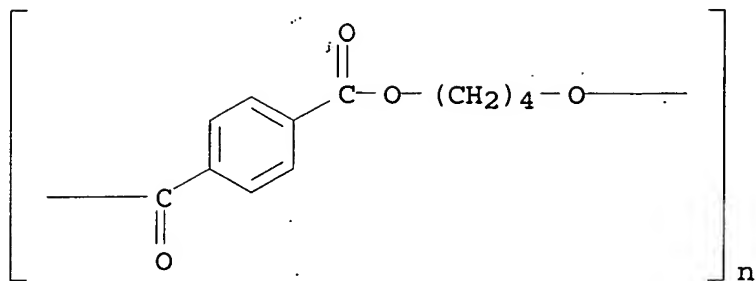
CRN 100-21-0  
 CMF C8 H6 O4



IT 24968-12-5, Poly(butylene terephthalate)  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(**polyester** compn. for cap for circular fluorescent lamp showing discoloration prevention)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



- IC ICM C08L067-00  
ICS C08J005-00; C08K003-22; C08K005-00; C08L063-02
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 73
- ST **polyester** compn cap circular fluorescent lamp;  
discoloration prevention **polyester** cap fluorescent lamp;  
arom polycarbonate blend **polyester** cap lamp; halogen  
fireproofing agent **polyester** cap lamp; fluoropolymer blend  
**polyester** cap fluorescent lamp
- IT **Sulfonic acids**, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered  
material use); USES (Uses)  
(C14-17-sec-alkanesulfonic, sodium salts, SAS 93,  
**antistatic** agent; in **polyester** compn. for cap  
for circular fluorescent lamp showing discoloration prevention)
- IT Polycarbonates, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
formulation); PYP (Physical process); TEM (Technical or engineered  
material use); PROC (Process); USES (Uses)  
(arom.; **polyester** compn. for cap for circular  
fluorescent lamp showing discoloration prevention)
- IT **Antistatic agents**  
**Fireproofing agents**  
**UV stabilizers**  
(in **polyester** compn. for cap for circular fluorescent  
lamp showing discoloration prevention)
- IT Fluoropolymers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(in **polyester** compn. for cap for circular fluorescent  
lamp showing discoloration prevention)
- IT Molding of plastics and rubbers  
(injection; of **polyester** compn. for cap for circular  
fluorescent lamp showing discoloration prevention)
- IT Discoloration prevention  
Fluorescent lamps  
(**polyester** compn. for cap for circular fluorescent lamp  
showing discoloration prevention)
- IT **Polyesters**, uses  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in  
formulation); PYP (Physical process); TEM (Technical or engineered



- material use); PROC (Process); USES (Uses)  
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT Polymer blends  
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 1309-64-4, Antimony trioxide, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(SHLB 80, fireproofing agent; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 3147-75-9, UV 5411  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(UV absorber; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 26062-94-2, Poly(butylene terephthalate)  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(assumed monomers; polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 154214-44-5, ML 4365  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(fireproofing agent; in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 675128-83-3, TSAN  
RL: MOA (Modifier or additive use); USES (Uses)  
(in polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)
- IT 24968-12-5, Poly(butylene terephthalate) 675128-74-2, ML 5221  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(polyester compn. for cap for circular fluorescent lamp showing discoloration prevention)

L75 ANSWER 18 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2004:203385 HCAPLUS  
DOCUMENT NUMBER: 140:236793  
TITLE: Matrix tray with tacky surfaces for handling semiconductor devices  
INVENTOR(S): Extrand, Charles W.; Manganiello, Frank  
PATENT ASSIGNEE(S): Entegris, Inc., USA  
SOURCE: U.S. Pat. Appl. Publ., 11 pp.  
CODEN: USXXCO

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004048009	A1	20040311	US 2002-241815	20020911
US 6926937	B2	20050809		
JP 2006505457	T2	20060216	JP 2004-536085	20030904
PRIORITY APPLN. INFO.:			US 2002-241805	A 20020911
			US 2002-241815	A 20020911
			WO 2003-US27533	W 20030904

AB A tray for handling and retaining a plurality of small components comprising a rigid body portion with a plurality of pockets formed therein. Each of the pockets has an elastomeric contact surface for contacting and retaining a component. The contact surface may be formed from a thermoplastic material having a surface energy between 20 dyne/cm and 100 dyne/cm, and a surface elec. resistivity of between about  $1 \times 10^4$  ohms/square and  $1 \times 10^{12}$  ohms/square. The material for the contact portion may be urethane, polybutylene terephthalate, polyolefin, polyethylene terephthalate, styrenic block co-polymer, styrene-butadiene rubber, polyether block polyamide, or polypropylene/crosslinked EDPM rubber. The body portion may be formed from acrylonitrile-butadiene-styrene, polycarbonate, urethane, polyphenylene sulfide, polystyrene, polymethyl methacrylate, polyetherketone, polyetheretherketone, polyetherketoneketone, polyether imide, polysulfone, styrene acrylonitrile, polyethylene, polypropylene, fluoropolymer, polyolefin, or nylon. The body portion may have a peripheral border region and a downwardly projecting skirt portion to facilitate stacking of multiple trays.

IT 9002-88-4, Polyethylene 9003-07-0,  
 Polypropylene

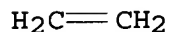
RL: TEM (Technical or engineered material use); USES (Uses)  
 (rigid body; prodn. of matrix tray with tacky surfaces for

handling semiconductor devices)

RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1  
CMF C2 H4



RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1  
CMF C3 H6

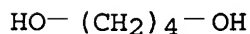


IT 26062-94-2, Polybutylene terephthalate  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(rubber, tacky surface-contg., assumed monomers; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)

RN 26062-94-2 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

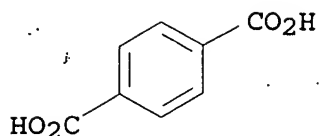
CM 1

CRN 110-63-4  
CMF C4 H10 O2

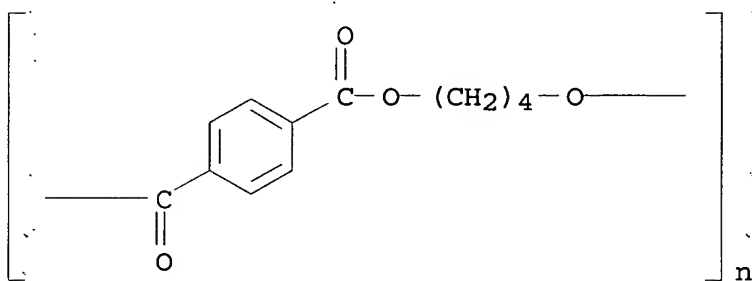


CM 2

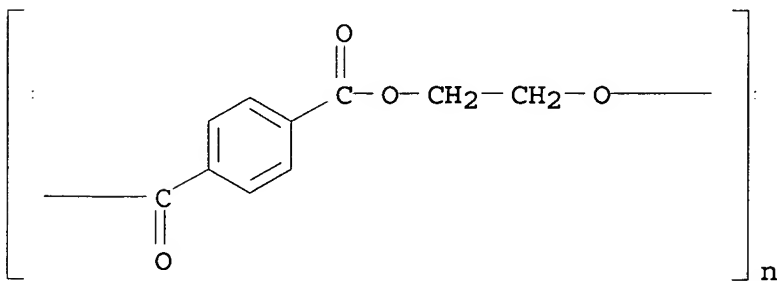
CRN 100-21-0  
CMF C8 H6 O4



IT 24968-12-5, Polybutylene terephthalate  
 25038-59-9, Polyethylene terephthalate,  
 uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)  
 (rubber, tacky surface-contg.; prodn. of matrix tray with tacky  
 surfaces for handling semiconductor devices)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IC ICM B32B001-02  
 INCL 428034100  
 CC 38-3 (Plastics Fabrication and Uses)  
 Section cross-reference(s): 39  
 IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)

- (alkanesulfonic, salts, fillers, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Synthetic rubber, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (polyamide-polyether, block, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Antistatic materials  
 Conducting polymers  
 Plates  
 (prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Fluoropolymers, uses  
 Polyamides, uses  
 Polycarbonates, uses  
 Polyolefins  
 Polysulfones, uses  
 Polythiophenylenes  
 Polyurethanes, uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (rigid body; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT Polyesters, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (rubber, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT EPDM rubber  
 Polyester rubber  
 Polyolefin rubber  
 Styrene-butadiene rubber, uses  
 Thermoplastic rubber  
 Urethane rubber, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 9002-88-4, Polyethylene 9003-07-0,  
 Polypropylene 9003-53-6, Polystyrene 9003-56-9, ABS  
 9011-14-7, Polymethyl methacrylate  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (rigid body; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 26062-94-2, Polybutylene terephthalate  
 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
 (rubber, tacky surface-contg., assumed monomers; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)
- IT 24968-12-5, Polybutylene terephthalate  
 25038-59-9, Polyethylene terephthalate,

uses

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(rubber, tacky surface-contg.; prodn. of matrix tray with tacky surfaces for handling semiconductor devices)

REFERENCE COUNT: 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L75 ANSWER 19 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:735019 HCAPLUS

DOCUMENT NUMBER: 139:261752

TITLE: Resin additive with moisture absorbing or moisture absorbing-releasing characteristics

INVENTOR(S): Iwafuji, Masaki; Nakagawa, Masao

PATENT ASSIGNEE(S): Sanyo Chemical Industries, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003261854	A2	20030919	JP 2002-344692	20021127
				20011127

PRIORITY APPLN. INFO.: JP 2001-360585 A

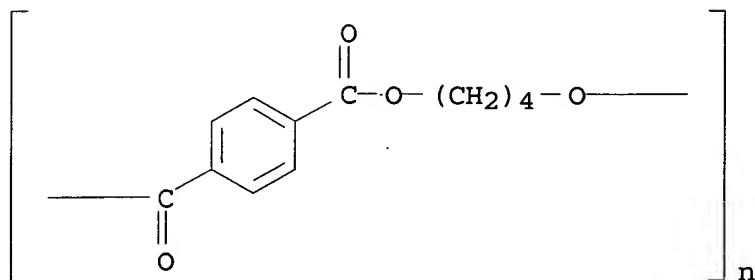
AB Title additive for resin with improved antistatic property comprises (poly)amide prepd. from (A) primary amine contg. polyoxyethylene chain and (B) sulfonic acid group-contg. carboxylic acid. Thus an additive prepd. by polymn. of sodium 5-sulfoisophthalate with polyoxyethylene diaminomethyl ether was molded with poly(butylene terephthalate) (Duranex 2000) to give a sheet for testing, showing moisture absorption rate (%) 3.1 at 20° and relative humidity 65% (w1), and 8.3 at 30° and relative humidity 90% (w2), surface specific resistance 3.1 + 10<sup>13</sup>, and moisture absorbing-releasing rate (%) 5.2 under conditions of w1-w2.

IT 24968-12-5, Duranex 2000 25038-54-4, Ube Nylon 1013B, properties 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

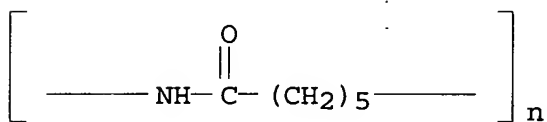
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(prepn. of polyamide additive with moisture absorbing or moisture absorbing-releasing characteristics for improving antistatic property of resins)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



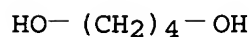
RN 25038-54-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

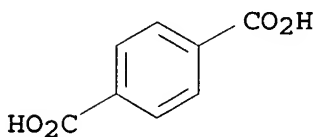
CM 1

CRN 110-63-4  
 CMF C4 H10 O2



CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C09K003-00  
ICS B32B027-34; C08G069-42; C08J005-00; C08J007-04; C08L101-00;  
C09K003-16; C08L077-06

CC 37-2 (Plastics Manufacture and Processing)

ST **polyamide** moisture absorbing releasing agent resin  
**antistatic** property

IT Absorption  
(moisture; prepn. of **polyamide** additive with moisture  
absorbing or moisture absorbing-releasing characteristics for  
improving **antistatic** property of resins)

IT Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(**polyamide**-; prepn. of **polyamide** additive  
with moisture absorbing or moisture absorbing-releasing  
characteristics for improving **antistatic** property of  
resins)

IT **Polyamides**, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-; prepn. of **polyamide** additive with  
moisture absorbing or moisture absorbing-releasing  
characteristics for improving **antistatic** property of  
resins)

IT Amides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(prepn. of (poly)amide additive with moisture absorbing or  
moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)

IT **Antistatic** agents  
(prepn. of **polyamide** additive with moisture absorbing  
or moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)

IT **Polyamides**, properties  
**Polyesters**, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(prepn. of **polyamide** additive with moisture absorbing  
or moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)

IT **Polyamides**, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(prepn. of **polyamide** additive with moisture absorbing  
or moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)

IT 600180-39-0P 600180-40-3P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(prepn. of **polyamide** additive with moisture absorbing  
or moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)



IT 24968-12-5, Duranex 2000 25038-54-4, Ube Nylon  
1013B, properties 26062-94-2, 1,4-Butanediol-terephthalic  
acid copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(prepn. of **polyamide** additive with moisture absorbing  
or moisture absorbing-releasing characteristics for improving  
**antistatic** property of resins)

L75 ANSWER 20 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2003:734933 HCAPLUS

DOCUMENT NUMBER: 139:246691

TITLE: **Antistatic** heat-resistant  
**polyester** resin composition and optical  
reflector

INVENTOR(S): Onda, Kayoko; Sato, Mitsunobu; Furukawa,  
Masazumi

PATENT ASSIGNEE(S): Nihon GE Plastics, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003261750	A2	20030919	JP 2002-63864	200203 08
PRIORITY APPLN. INFO.:				200203 08

AB Title compn. comprises (A) 100 parts of **polyester** resins  
such as Dianite MA 580, (B) 0-100 parts of inorg. fillers such as NK  
48, (C) 0-400 parts of polycarbonates, (D) **antistatic**  
agents 0.1-50 wt% to total amt. of A, B, and C. with load flexible  
temp. at least 120° measured at load amt. 4.6 kg/cm2.

IT 26062-94-2  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)

(assumed monomers; prodn. of **antistatic** heat-resistant  
**polyester** resin compn. and optical reflector)

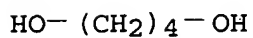
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 110-63-4

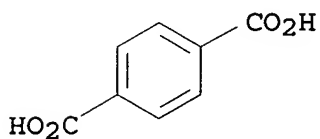
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4

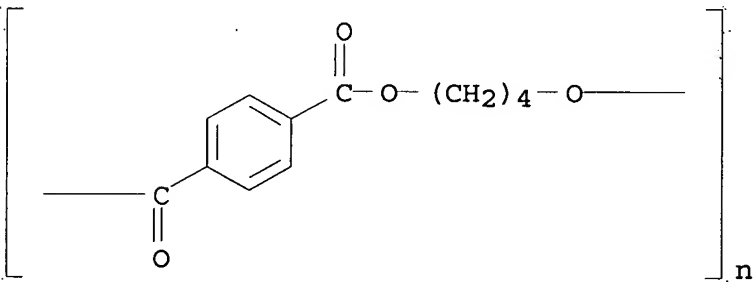


IT 24968-12-5, PBT 25038-59-9, Dianite MA 580, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)

(prodn. of antistatic heat-resistant polyester  
 resin compn. and optical reflector)

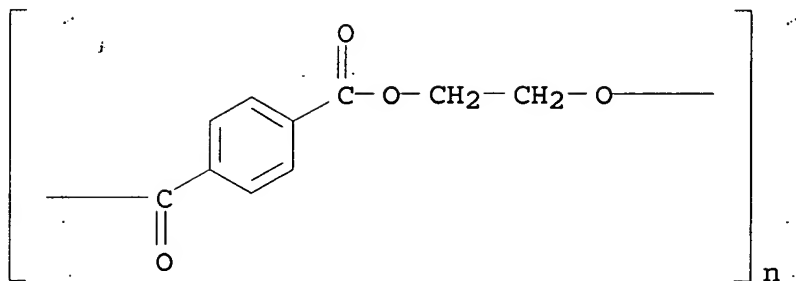
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



- IC ICM C08L067-00  
ICS B32B027-36; C08J005-00; C08K003-00; C08K005-17; C08K005-42;  
C08L069-00
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 73
- ST **antistatic** heat resistant **polyester** resin compn  
optical reflector
- IT **Sulfonic acids**, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(C14-17-sec-alkanesulfonic, sodium salts, SAS 93,  
**antistatic** agents; prodn. of **antistatic**  
heat-resistant **polyester** resin compn. and optical  
reflector)
- IT Polymer blends  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(**polyester**-polycarbonate; prodn. of **antistatic**  
heat-resistant **polyester** resin compn. and optical  
reflector)
- IT **Antistatic** agents  
Fillers  
Heat-resistant materials  
Optical reflectors  
(prodn. of **antistatic** heat-resistant **polyester**  
resin compn. and optical reflector)
- IT Polycarbonates, uses  
**Polyesters**, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(prodn. of **antistatic** heat-resistant **polyester**  
resin compn. and optical reflector)
- IT 26062-94-2  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(assumed monomers; prodn. of **antistatic** heat-resistant  
**polyester** resin compn. and optical reflector)
- IT 14807-96-6, NK 48, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(fillers; prodn. of **antistatic** heat-resistant  
**polyester** resin compn. and optical reflector)

IT 24968-12-5, PBT 25038-59-9, Dianite MA 580, uses  
 RL: POF (Polymer in formulation); TEM (Technical or engineered  
 material use); USES (Uses)  
 (prodn. of antistatic heat-resistant polyester  
 resin compn. and optical reflector)

L75 ANSWER 21 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2002:539607 HCAPLUS

DOCUMENT NUMBER: 137:94914

TITLE: Antistatic flexible intermediate bulk  
 container

INVENTOR(S): Jud, Rene; Minder, Ernst; Krause, Eberhard

PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.

SOURCE: PCT Int. Appl., 29 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002055411	A1	20020718	WO 2002-EP93	20020108
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
TW 232246	B1	20050511	TW 2001-90129258	20011127
CA 2432001	AA	20020718	CA 2002-2432001	20020108
EP 1351867	A1	20031015	EP 2002-708261	20020108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004525039	T2	20040819	JP 2002-556101	20020108
US 2004058604	A1	20040325	US 2003-250963	200307

PRIORITY APPLN. INFO.: EP 2001-810035 A 10  
 200101  
 15  
 WO 2002-EP93 W 200201  
 08

AB The woven **antistatic** flexible intermediate bulk container (FIBC), which safely be used with goods holding a considerable explosion rick such as chem. powders or granules or wheat due to electrostatic charging, comprises a **polyolefin** fiber or strip contg. an **antistatic** additive such as a **polyetheresteramide** and a **polyester-ether** block copolymer, or an **antistatic** compn. contg. the **polyetheresteramide** or the **polyester-ether** block copolymer.

IT 25085-53-4, Isotactic **polypropylene**  
 RL: PRP (Properties); TEM (Technical or engineered material use);  
 USES (Uses)  
 (fibers; **antistatic** flexible intermediate bulk container)

RN 25085-53-4 HCAPLUS

CN 1-Propene, homopolymer, isotactic (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1

CMF C3 H6

$\text{H}_3\text{C}-\text{CH}=\text{CH}_2$

IC ICM B65D088-16

ICS D01F006-04; D01F006-06; D01F001-09; D01F006-46

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 40, 59

ST **antistatic polypropylene** fiber intermediate bulk container; **polyether polyester polyamide** **antistatic** agent; **polyester polyether** block copolymer **antistatic** agent

IT Containers

(FIBC; **antistatic** flexible intermediate bulk container)

IT Acrylic fibers, uses

**Polyamide** fibers, uses

**Polyester** fibers, uses

**Polyurethane** fibers

RL: MOA (Modifier or additive use); USES (Uses)

(**antistatic** agents; **antistatic** flexible intermediate bulk container)

IT Antistatic agents  
Textiles  
(antistatic flexible intermediate bulk container)

IT Polyolefin fibers  
Polypropene fibers, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(antistatic flexible intermediate bulk container)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyamide-polyester-, antistatic  
agents; antistatic flexible intermediate bulk  
container)

IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyamide-polyether-, antistatic agents;  
antistatic flexible intermediate bulk container)

IT Polyethers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyester-, block, antistatic agents;  
antistatic flexible intermediate bulk container)

IT Polyamides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyester-polyether-, antistatic agents;  
antistatic flexible intermediate bulk container)

IT Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, block, antistatic agents;  
antistatic flexible intermediate bulk container)

IT Synthetic polymeric fibers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(vinyl acetate, antistatic agents; antistatic  
flexible intermediate bulk container)

IT 260368-70-5, Irgastat P 22 401844-75-5, Irgastat P 18  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agent; antistatic flexible  
intermediate bulk container)

IT 2926-27-4, Trifluoromethanesulfonic acid,  
potassium salt 2926-30-9, Trifluoromethanesulfonic  
acid, sodium salt 7601-89-0, Sodium perchlorate  
7778-74-7, Potassium perchlorate 7791-03-9, Lithium perchlorate  
9003-20-7, Poly(vinyl acetate) 10034-81-8, Magnesium perchlorate  
13477-36-6, Calcium perchlorate 13637-61-1, Zinc perchlorate  
13755-29-8 14075-53-7, Potassium tetrafluoroborate (KBF<sub>4</sub>)  
14283-07-9, Lithium tetrafluoroborate (LiBF<sub>4</sub>) 17084-13-8,  
Potassium hexafluorophosphate 29420-49-3,  
Perfluorobutanesulfonic acid, potassium salt  
33454-82-9, Trifluoromethanesulfonic acid,  
lithium salt 55120-75-7 60871-83-2 194469-72-2, Zinc  
hexafluorophosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agents; antistatic flexible

intermediate bulk container)  
IT 78415-39-1, Calcium hexafluorophosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic flexible intermediate bulk container)  
IT 9002-89-5, Polyvinyl alcohol 9003-01-4D, Poly(acrylic acid),  
esters 25014-41-9, Polyacrylonitrile 25087-26-7D,  
Poly(methacrylic acid), esters  
RL: MOA (Modifier or additive use); USES (Uses)  
(fibers, antistatic agents; antistatic  
flexible intermediate bulk container)  
IT 25085-53-4, Isotactic polypropylene  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(fibers; antistatic flexible intermediate bulk  
container)  
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

L75 ANSWER 22 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2002:148670 HCAPLUS  
DOCUMENT NUMBER: 136:185077  
TITLE: Antistatic multilayer plastic films  
and decorative boards laminated with them  
INVENTOR(S): Fujii, Koji; Terauchi, Fumiko; Iwashita,  
Hiroyuki  
PATENT ASSIGNEE(S): Toyo Kohan Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2002059518	A2	20020226	JP 2000-250357	200008 21
PRIORITY APPLN. INFO.: JP 2000-250357				200008 21

AB The film has an adhesive resin layer (A), a substrate resin layer (B), a printing layer (C), an adhesive layer (D) contg. 1-10% an antistatic agent, and a transparent surface resin layers (E) in this order. Alternatively, the film is a laminate of A-B-D-C-E, B-C-D-E, A-B-D-E, B-D-C-E, or A-B. Thus, an embossed PET film was laminated with a printed 2-layer film (comprising ethylene terephthalate isophthalate copolymer and PBT) via a polyester adhesive contg. 1% Rheodol TW-L 120 (nonionic

surfactant) and bonded to a Zn-Al alloy-plated steel plate to give a test piece showing good antistaticity and interlayer adhesion.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2

, Poly(butylene terephthalate)

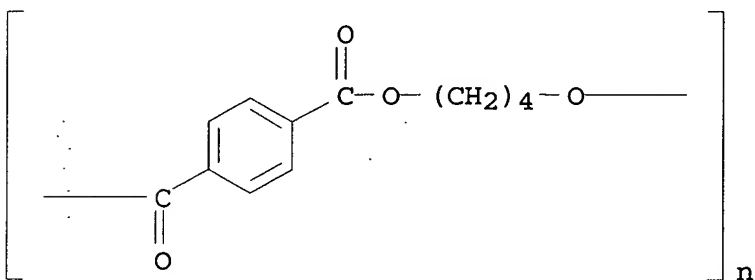
RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)

(substrate; multilayer polyester films having adhesive layers contg. antistatic agents for decorative boards)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

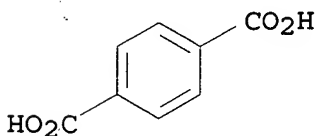
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IT 25038-59-9, Poly(ethylene terephthalate), uses

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

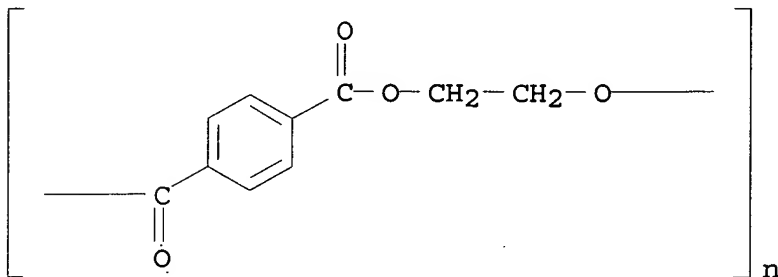


RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(surface layer; multilayer **polyester** films having  
adhesive layers contg. **antistatic** agents for decorative  
boards)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IC ICM B32B027-18

ICS B32B033-00; C09J007-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 43, 55, 58

ST multilayer plastic film plaster decorative board; **polyester**  
galvanized steel laminate interlayer adhesion; **antistaticity**  
surfactant adhesive PET PBT laminate

IT **Sulfonic acids, uses**

RL: MOA (Modifier or additive use); TEM (Technical or engineered  
material use); USES (Uses)

(C12-17-alkanesulfonic, sodium salts, Chemistat 3033, adhesive  
resin layer contg.; multilayer **polyester** films having  
adhesive layers contg. **antistatic** agents for decorative  
boards)

IT Polyurethanes, uses

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(adhesive; multilayer **polyester** films having adhesive  
layers contg. **antistatic** agents for decorative boards)

IT Galvanized steel

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(decorative board; multilayer **polyester** films having  
adhesive layers contg. **antistatic** agents for decorative  
boards)

IT Construction materials

(decorative boards; multilayer **polyester** films having  
adhesive layers contg. **antistatic** agents for decorative  
boards)

IT Laminated plastics, uses

RL: PRP (Properties); TEM (Technical or engineered material use);

USES (Uses)  
(decorative; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT Construction materials  
(gypsum boards, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Antistatic** agents  
Laminated plastic films  
(multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Polyesters**, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT Wood boards  
(plywood, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT **Polyesters**, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(surface layer; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 12597-69-2, Steel, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(Zn-Al alloy-plated, decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 12597-68-1, Stainless steel, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(decorative board; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 9005-64-5, Rheodol TW-L 120  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(nonionic surfactant, adhesive layer contg.; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 11149-84-1  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(steel plated with; multilayer **polyester** films having adhesive layers contg. **antistatic** agents for decorative boards)

IT 9017-34-9 24968-12-5, Poly(butylene terephthalate)  
26062-94-2, Poly(butylene terephthalate)

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(substrate; multilayer polyester films having adhesive  
layers contg. antistatic agents for decorative boards)

IT 25038-59-9, Poly(ethylene terephthalate), uses

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(surface layer; multilayer polyester films having  
adhesive layers contg. antistatic agents for decorative  
boards)

IT 24938-04-3, Ethylene isophthalate terephthalate copolymer

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(surface or adhesive resin layer; multilayer polyester  
films having adhesive layers contg. antistatic agents  
for decorative boards)

L75 ANSWER 23 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:269369 HCAPLUS

DOCUMENT NUMBER: 134:296646

TITLE: Antistatic resin compositions and  
thermoplastic resin compositions therewith

INVENTOR(S): Tsubaki, Takayuki; Kikuta, Manabu

PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001106850	A2	20010417	JP 1999-289063	199910 12
PRIORITY APPLN. INFO.:				199910 12

OTHER SOURCE(S): MARPAT 134:296646

AB Resin compns. contain 50-99% cationic polymers of ethylene 70-99,  
acrylates 0-15, and acrylamides 1-30 mol% and 1-50% sulfonic  
acid salts. Thus, a compn. contained 87:10:3  
(molar) ethylene-Me acrylate-N-trimethylpropylammonioethylacrylamide  
chloride 25, Na methanesulfonate 5, and LDPE 70%.

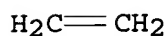
IT 9002-88-4, LD ZF 51

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(LD ZF 51 and Polyethy HD BU 004; antistatic cationic  
resin compns. contg. sulfonic acid  
salts)

RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1  
 CMF C2 H4

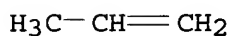


IT 9003-07-0, ME 230  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (ME 230; antistatic cationic resin compns. contg.  
 sulfonic acid salts)

RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

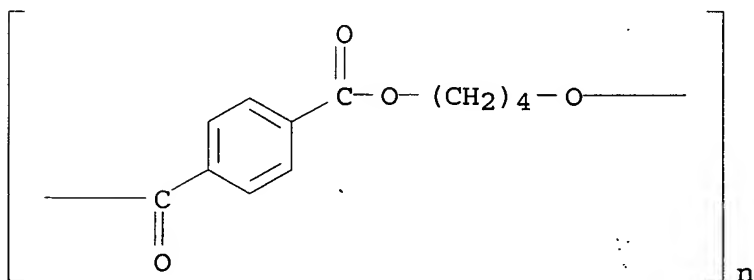
CM 1

CRN 115-07-1  
 CMF C3 H6



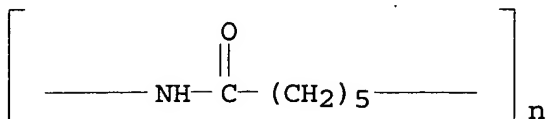
IT 24968-12-5, PBT 1401  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (PBT 1401; antistatic cationic resin compns. contg.  
 sulfonic acid salts)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IT 25038-54-4, Ube 1013B, properties  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (Ube 1013B; antistatic cationic resin compns. contg.  
 sulfonic acid salts)

RN 25038-54-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (antistatic cationic resin compns. contg.  
 sulfonic acid salts)

RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

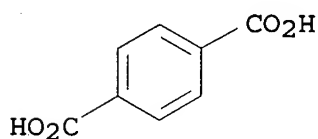
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08L023-26  
 ICS C08F008-00; C08F210-02; C08K005-42; C08L101-16; C09K003-16;  
 C08F220-10; C08F220-60  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST cationic polymer sulfonate salt antistatic agent;  
 methanesulfonate antistatic agent polymer; vinyl polymer  
 antistatic agent sulfonate  
 IT Rubber, properties  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (-modified polystyrene; antistatic cationic resin  
 compns. contg. sulfonic acid salts)  
 IT Polyamides, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(Ube 1013B; antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Sulfonates  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(alkanesulfonates; antistatic cationic resin compns.  
contg. sulfonic acid salts)

IT Sulfonic acids, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(alkanesulfonic; antistatic cationic resin compns.  
contg. sulfonic acid salts)

IT Antistatic agents  
(antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Polyesters, properties  
Polymer blends  
Polyolefins  
Thermoplastic rubber  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Hydroxides (inorganic)  
Oxides (inorganic), reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Sulfonates  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(arenesulfonates; antistatic cationic resin compns.  
contg. sulfonic acid salts)

IT Sulfonic acids, reactions  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(arenesulfonic; antistatic cationic resin compns.  
contg. sulfonic acid salts)

IT Polyelectrolytes  
(cationic; antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Quaternary ammonium compounds, preparation  
Vinyl compounds, preparation  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(polymers; antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Aromatic compounds  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(sulfonates; antistatic cationic resin compns. contg.  
sulfonic acid salts)

IT Plastics, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(thermoplastics; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9011-87-4, Acrypet MD  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(Acrypet MD; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-56-9, JSR ABS 35  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(JSR ABS 35; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9002-88-4, LD ZF 51  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(LD ZF 51 and Polyethy HD BU 004; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-07-0, ME 230  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(ME 230; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 24968-12-5, PBT 1401  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(PBT 1401; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 25038-54-4, Ube 1013B, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(Ube 1013B; antistatic cationic resin compns. contg. sulfonic acid salts)

IT 1470-83-3P, Lithium p-toluenesulfonate 2386-57-4P, Sodium methanesulfonate 14472-28-7P, Aluminum p-toluenesulfonate 36585-79-2P, Potassium ethanesulfonate 36747-44-1P, Calcium p-toluenesulfonate 58131-47-8P, Calcium methanesulfonate  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 325467-20-7P 325467-21-8P 325467-22-9P 325467-24-1P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 657-84-1, Sodium p-toluenesulfonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 9003-53-6D, Polystyrene, rubber-modified 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer 56572-92-0, Estyrene H 65  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic cationic resin compns. contg. sulfonic acid salts)

IT 75-75-2, Methanesulfonic acid 104-15-4, p-  
Toluenesulfonic acid, reactions 594-45-6,  
Ethanesulfonic acid  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(antistatic cationic resin compns. contg.  
sulfonic acid salts)

L75 ANSWER 24 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2001:137288 HCAPLUS

DOCUMENT NUMBER: 134:194127

TITLE: Antistatic agent for plastics

INVENTOR(S): Dobler, Martin; Kohler, Walter; Bier, Peter;  
Ebert, Wolfgang; Gorny, Rudiger; Neumann,  
Siegfried

PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

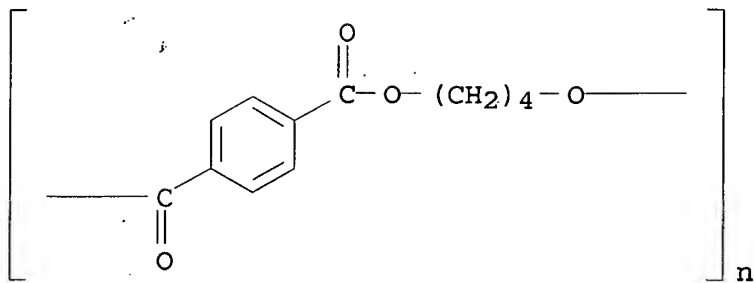
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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WO 2001012713	A1	20010222	WO 2000-EP7524	200008 03
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19943637	A1	20010222	DE 1999-19943637	199909 13
CA 2388621	AA	20010222	CA 2000-2388621	200008 03
BR 2000013114	A	20020430	BR 2000-13114	200008 03
EP 1210388	A1	20020605	EP 2000-956384	200008 03
EP 1210388	B1	20040623		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC,				



PT, IE, SI, LT, LV, FI, RO, MK, CY, AL  
JP 2003507510 T2 20030225 JP 2001-517603 200008  
03  
AU 760642 B2 20030522 AU 2000-68346 200008  
03  
NZ 517182 A 20030725 NZ 2000-517182 200008  
03  
AT 269879 E 20040715 AT 2000-956384 200008  
03  
ES 2223569 T3 20050301 ES 2000-956384 200008  
03  
US 6914092 B1 20050705 US 2002-49837 200008  
03  
ZA 2002000382 A 20030116 ZA 2002-382 200201  
16  
NO 2002000743 A 20020412 NO 2002-743 200202  
14  
PRIORITY APPLN. INFO.: DE 1999-19938735 A 199908  
16  
DE 1999-19943637 A 199909  
13  
WO 2000-EP7524 W 200008  
03

AB The invention relates to the use of fluorinated  
alkylsulfonic acid salts as an  
antistatic agent, esp. in plastics, and to plastics contg.  
fluorinated alkylsulfonic acid salts  
and molded bodies produced from said plastics.  
IT 24968-12-5, Pocan B 1305 26062-94-2  
RL: POF (Polymer in formulation); USES (Uses)  
(fluoroalkanesulfonate salt antistatic agents for  
plastics)  
RN 24968-12-5 HCAPLUS  
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

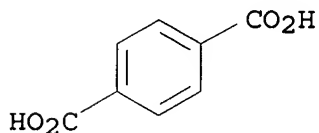
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08K005-42

CC 37-6 (Plastics Manufacture and Processing)

ST fluoroalkanesulfonate salt antistatic agent plastic

IT Sulfonates

RL: MOA (Modifier or additive use); USES (Uses)

(alkanesulfonates, fluoro; fluoroalkanesulfonate salt antistatic agents for plastics)

IT Antistatic agents

(fluoroalkanesulfonate salt antistatic agents for plastics)

IT Polycarbonates, uses

Polyesters, uses

Polymer blends

RL: POF (Polymer in formulation); USES (Uses)

(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 56773-42-3, Tetraethylammonium perfluorooctanesulfonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(Bayowet 248; fluoroalkanesulfonate salt antistatic agents for plastics)

IT 2795-39-3, Potassium perfluorooctanesulfonate 25628-08-4,  
Tetraethylammonium perfluorobutanesulfonate 25628-16-4,  
Benzyltrimethylammonium perfluorobutanesulfonate 326914-75-4,  
Phenyltrimethylammonium perfluorooctanesulfonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 24936-68-3, Makrolon 2808, uses 24968-12-5, Pocan B 1305  
25037-45-0 26062-94-2 130237-72-8, Bayblend T45  
327025-49-0, Bayblend FR 2000 327025-57-0, Apec HT-KU 1-9201  
RL: POF (Polymer in formulation); USES (Uses)  
(fluoroalkanesulfonate salt antistatic agents for plastics)

IT 9003-56-9, ABS polymer  
RL: POF (Polymer in formulation); USES (Uses)  
(polycarbonate blends; fluoroalkanesulfonate salt antistatic agents for plastics)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR  
THIS RECORD. ALL CITATIONS AVAILABLE IN  
THE RE FORMAT

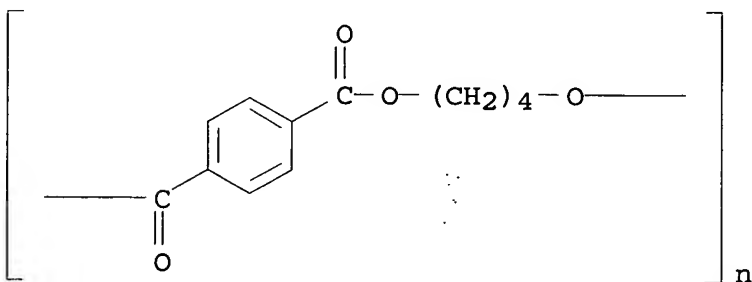
L75 ANSWER 25 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:778488 HCAPLUS  
DOCUMENT NUMBER: 133:336258  
TITLE: Antistatic poly(butylene terephthalate)-based resin compositions and their manufacture  
INVENTOR(S): Ito, Takashi  
PATENT ASSIGNEE(S): Teijin Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000309691	A2	20001107	JP 1999-117783	19990426
PRIORITY APPLN. INFO.:				19990426
				19990426

OTHER SOURCE(S): MARPAT 133:336258

AB The compns., showing good mech. strength and semipermanent **antistaticity**, comprise (A) poly(butylene terephthalate) (PBT)-based resins 100, (B) polyether-polyesters prepd. from (B1) C6-20 dicarboxylic acids (esters) contg. 3-50 mol% (based on B1) Ar(CO<sub>2</sub>R<sub>1</sub>)(SO<sub>3</sub>M)CO<sub>2</sub>R<sub>2</sub> (Ar = C6-12 trivalent arom. group; R<sub>1</sub>, R<sub>2</sub> = H, C1-6 alkyl, C6-12 aryl; M = metal, tetraalkylphosphonium, tetraalkylammonium), (B2) 40-90 wt.% (based on B) polyoxyalkylenes of Mn 200-50,000, and (B3) C2-10 glycols 5-30 parts, and (C) surfactants 0.5-6 parts. The B reduced viscosity ( $\eta$ ) in 60:40 (wt.%) phenol/tetrachloroethane at 35° and at concn. 1.2 g/dL 1.0-5.0. The compns. may contain 0.01-5 wt.% (based on B) 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-(C1-19-alkoxy)phenol as light stabilizers and 0.01-5 wt.% hindered phenols as antioxidants. The compns. are manufd. by polycondensation for B, kneading of B with C, and further kneading of the B-C blends with A. Thus, 10418 parts di-Me terephthalate was polycondensed with di-Me 5-sodiosulfoisophthalate 1865, ethylene glycol 7440, and **polyethylene glycol** (Mn 2000) 26400 parts at 200° in the presence of (BuO)<sub>4</sub>Ti, mixed with 189 parts 1,3,5-trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene, reacted with 154 parts dipheynl carbonate at 230°, and mixed with 189 parts 2-(4,6-diphenyl-1,3,5-triazin-2-yl)-5-(hexyloxy)phenol (Tinuvin 1577ff) to give a polyether-polyester of  $\eta$  3.92, 10 parts of which was kneaded with 89 parts PBT (TRB HT) and 1 part Na dodecylbenzenesulfonate, pelletized, and injection molded to give a 2-mm-thick specimen showing surface resistivity (logR) 11.6 initially and 11.4 after washing with water and excellent lightfastness.

IT 24968-12-5, Poly(butylene terephthalate)  
 RL: PRP (Properties); TEM (Technical or engineered material use);  
 USES (Uses)  
 (TRB-HT; **antistatic** poly(butylene terephthalate)  
 compns. contg. sulfonated polyester-polyethers)  
 RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IT 26062-94-2, Poly(butylene terephthalate)  
 RL: PRP (Properties); TEM (Technical or engineered material use);

## USES (Uses)

(antistatic polymer blends of PBT and sulfonyl-contg.  
polyester-polyoxyalkylenes)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 110-63-4

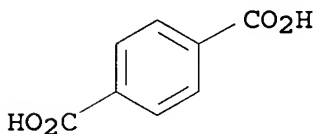
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02

ICS C08K005-00; C08K005-13; C08K005-3492; C09K003-00; C09K003-16;  
C07D251-24

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST polybutylene terephthalate antistatic

polyether polyester blend; sulfonated polyoxyalkylene

polyester PBT blend; hindered phenol triazine blended

antistatic PBT; polyethylene glycol

sodiosulfoisophthalate polyester blended PBT

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); USES (Uses)

(alkyl derivs., surfactants; antistatic poly(butylene  
terephthalate) compns. contg. sulfonated polyester  
-polyethers)

IT Antistatic agents

Surfactants

(antistatic poly(butylene terephthalate) compns. contg.  
sulfonated polyester-polyethers)

IT Polyesters, uses

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)

(arom.; antistatic poly(butylene terephthalate) compns.)

- contg. sulfonated polyester-polyethers)
- IT Antioxidants  
(hindered phenols; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT Polyoxyalkylenes, uses  
Polyoxyalkylenes, uses  
Polyoxyalkylenes, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(polycarbonate-polyester-, antistatic agents;  
antistatic poly(butylene terephthalate) compns. contg.  
sulfonated polyester-polyethers)
- IT Polyesters, uses  
Polyesters, uses  
Polyesters, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(polycarbonate-polyoxyalkylene-, antistatic agents;  
antistatic poly(butylene terephthalate) compns. contg.  
sulfonated polyester-polyethers)
- IT Polycarbonates, uses  
Polycarbonates, uses  
Polycarbonates, uses  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(polyester-polyoxyalkylene-, antistatic  
agents; antistatic poly(butylene terephthalate) compns.  
contg. sulfonated polyester-polyethers)
- IT Light stabilizers  
(triazine deriv.; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 24968-12-5, Poly(butylene terephthalate)  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(TRB-HT; antistatic poly(butylene terephthalate)  
compns. contg. sulfonated polyester-polyethers)
- IT 1709-70-2, 1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene  
RL: MOA (Modifier or additive use); USES (Uses)  
(antioxidant; antistatic polymer blends of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 296798-06-6P, Dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-diphenyl carbonate-ethylene glycol-polyethylene glycol copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(antistatic agents; antistatic polymer blends  
of PBT and sulfonyl-contg. polyester-polyoxyalkylenes)
- IT 26062-94-2, Poly(butylene terephthalate)  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(antistatic polymer blends of PBT and sulfonyl-contg.

polyester-polyoxyalkylenes)  
IT 108-95-2D, Phenol, deriv., uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(hindered, antioxidant; antistatic polymer blends of  
PBT and sulfonyl-contg. polyester-polyoxyalkylenes)  
IT 290-87-9D, 1,3,5-Triazine, deriv. 147315-50-2, Tinuvin 1577ff  
RL: MOA (Modifier or additive use); USES (Uses)  
(light stabilizers; antistatic polymer blends of PBT  
and sulfonyl-contg. polyester-polyoxyalkylenes)  
IT 25155-30-0, Sodium dodecylbenzenesulfonate  
RL: MOA (Modifier or additive use); USES (Uses)  
(surfactant; antistatic polymer blends of PBT and  
sulfonyl-contg. polyester-polyoxyalkylenes)  
IT 98-11-3D, Benzenesulfonic acid, alkyl esters,  
uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(surfactants; antistatic poly(butylene terephthalate)  
compns. contg. sulfonated polyester-polyethers)

L75 ANSWER 26 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:214855 HCAPLUS  
DOCUMENT NUMBER: 132:251902  
TITLE: Rubber-modified styrene graft copolymer  
compositions with excellent  
antistaticity and impact resistance  
INVENTOR(S): Shiota, Koji; Miura, Norikiyo  
PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000095921	A2	20000404	JP 1998-267909	199809 22
PRIORITY APPLN. INFO.:			JP 1998-267909	199809 22

AB The compns., useful for elec. appliances, automotive parts,  
packaging materials, etc., contain rubber-modified styrene polymers,  
1-25% (on the total wt.) copolymers of styrene and acid group-contg.  
vinyl compds., and antistatic agents selected from  
sulfonic acid-free poly(ether-esters) and  
poly(ether-ester-amides).  
Thus, a test piece prepd. from a 84:6:10 mixt. of Toyolac 500 (ABS  
resin), styrene-methacrylic acid copolymer, and a reaction product

of polyoxyethylene, di-Me terephthalate, and ethylene glycol showed surface resistivity  $8 + 10^{12} \Omega/\text{square}$  after washing and falling-wt. impact, test 39 J.

- IC ICM C08L055-02  
ICS C08K005-10
- CC 37-6 (Plastics Manufacture and Processing)
- ST **antistaticity** rubber modification styrene graft copolymer;  
impact resistance ABS polyether **polyester** compatibility;  
compatibilizer styrene methacrylic acid copolymer
- IT Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(**polyamide-polyester-**, block,  
**antistatic** agent; rubber-modified styrene  
copolymer-polyether ester blends contg. compatibilizers with good  
**antistaticity** and impact resistance)
- IT **Polyesters**, preparation  
**Polyesters**, preparation  
**Polyesters**, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(**polyamide-polyoxyalkylene-**, block, **antistatic**  
agent; rubber-modified styrene copolymer-polyether ester blends  
contg. compatibilizers with good **antistaticity** and  
impact resistance)
- IT Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(**polyester-**, block, **antistatic** agent;  
rubber-modified styrene copolymer-polyether ester blends contg.  
compatibilizers with good **antistaticity** and impact  
resistance)
- IT **Polyamides**, preparation  
**Polyamides**, preparation  
**Polyamides**, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(**polyester-polyoxyalkylene-**, block, **antistatic**  
agent; rubber-modified styrene copolymer-polyether ester blends  
contg. compatibilizers with good **antistaticity** and  
impact resistance)
- IT **Polyesters**, preparation  
**Polyesters**, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(**polyoxyalkylene-**, block, **antistatic** agent;  
rubber-modified styrene copolymer-polyether ester blends contg.  
compatibilizers with good **antistaticity** and impact  
resistance)



- IT **Antistatic agents**  
Impact-resistant materials  
Polymer blend compatibilizers  
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT **Polymer blends**  
RL: PRP (Properties)  
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 106343-12-8P, Dimethyl terephthalate-ethylene glycol-**polyethylene** glycol block copolymer 113264-09-8P,  $\omega$ -Aminodecanoic acid-dodecanedioic acid- **polyethylene** glycol block copolymer 114650-72-5P, Adipic acid-hexamethylenediamine-**polyethylene** glycol block copolymer 262846-41-3P, Dimethyl terephthalate-ethoxylated bisphenol A-ethylene glycol block copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(**antistatic** agent; rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 9010-92-8, Methacrylic acid-styrene copolymer  
RL: MOA (Modifier or additive use); USES (Uses)  
(compatibilizer; rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)
- IT 9003-56-9, Toyolac 500  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(rubber-modified styrene copolymer-polyether ester blends contg. compatibilizers with good **antistaticity** and impact resistance)

L75 ANSWER 27 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:180987 HCAPLUS

DOCUMENT NUMBER: 132:223587

TITLE: Highly **antistatic** laminates and their moldings with good water resistance

INVENTOR(S): Kobase, Shigetsugu; Abe, Kazuhiro; Harada, Mitsuhiro; Kitagawa, Hironobu

PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006

JP 2000079662	A2	20000321	JP 1999-174502	199906 21
KR 2000006322	A	20000125	KR 1999-23258	199906 21
CN 1243062	A	20000202	CN 1999-119201	199906 22
SG 92643	A1	20021119	SG 1999-3090	199906 22
PRIORITY APPLN. INFO.:			JP 1998-174748	A 199806 22

AB The laminates, useful for carrier tapes or trays for electronic parts, cushioning packaging materials, IC cards, etc., contain cured elec. conductive layers contg. elec. conductive polymers and surfactants. Thus, aq. i-PrOH soln. of poly(2-aminoanisoole-4-sulfonic acid), aq. i-PrOH soln. of 48:48:4:80:20 di-Me terephthalate-di-Me isophthalate-Na 5-sulfoisophthalate-ethylene glycol-diethylene glycol copolymer, Emulgen 810 (nonionic surfactant), and aq. dispersion of poly(vinyl alc.)/Elastron BN 69 (polyisocyanate) were mixed and applied to a PET sheet to give a sheet showing water- and moisture-resistant resistivity, light transmittance 88%, haze 2.8, good blocking resistance, and no defects.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
25038-59-9, Poly(ethylene terephthalate), uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(base sheet; highly antistatic laminates and their moldings with good water resistance)

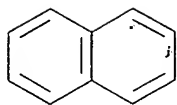
RN 9020-32-0 HCAPLUS  
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [ D1-CO<sub>2</sub>H ]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

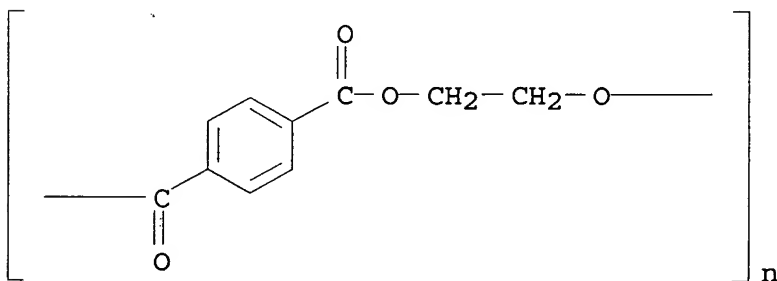
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IC ICM B32B027-18

ICS B65D081-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 76

ST **antistatic** laminate conductive polymer layer surfactant;  
sulfo polyaniline **polyester antistatic** laminate  
conductive layer; water resistant **antistatic** laminate  
conductive polymer; electronic part tray **antistatic**  
laminate; carrier tape electronic part **antistatic**  
laminate; cushioning packaging material **antistatic**

laminate; IC card **antistatic** laminate water resistance

IT Coating materials  
(**antistatic**; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(base sheet; highly **antistatic** laminates and their moldings with good water resistance)

IT Polycarbonates, uses  
**Polyesters**, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(base sheets; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyolefins**  
Polyurethanes, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(base sheets; highly **antistatic** laminates and their moldings with good water resistance)

IT Integrated circuits  
(cards; highly **antistatic** laminates and their moldings with good water resistance)

IT Polyanilines  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(conductive polymers; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(graft, conductive layers; highly **antistatic** laminates and their moldings with good water resistance)

IT Cushions  
Electronic packages  
Water-resistant materials  
(highly **antistatic** laminates and their moldings with good water resistance)

IT Laminated plastics, uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(highly **antistatic** laminates and their moldings with good water resistance)

IT Surfactants  
(in conductive layers; highly **antistatic** laminates and their moldings with good water resistance)

IT Conducting polymers  
(sulfo-contg. polyanilines; highly **antistatic** laminates and their moldings with good water resistance)

IT **Polyesters**, uses

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(sulfo-contg., conductive layers; highly antistatic laminates and their moldings with good water resistance)

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
25038-59-9, Poly(ethylene terephthalate), uses 26780-49-4,  
Ethylene glycol-neopentyl glycol-terephthalic acid copolymer  
73714-40-6, Cyclohexanedimethanol-ethylene glycol-terephthalic acid  
copolymer

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(base sheet; highly antistatic laminates and their  
moldings with good water resistance)

IT 82200-41-7P, Diethylene glycol-dimethyl isophthalate-dimethyl  
terephthalate-ethylene glycol-sodium 5-sulfoisophthalate copolymer  
261353-69-9P

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(conductive layer; highly antistatic laminates and  
their moldings with good water resistance)

IT 167860-86-8P, 2-Aminoanisole-4-sulfonic acid  
homopolymer

RL: IMF (Industrial manufacture); POF (Polymer in formulation); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(conductive polymer; highly antistatic laminates and  
their moldings with good water resistance)

IT 56-81-5D, Glycerol, polyglycidyl ethers

RL: MOA (Modifier or additive use); USES (Uses)

(crosslinking agents for conductive polymer layer; highly  
antistatic laminates and their moldings with good water  
resistance)

IT 261353-70-2 261353-71-3 261353-72-4

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(cured conductive layer; highly antistatic laminates  
and their moldings with good water resistance)

IT 9036-19-5, Emulgen 810 52550-45-5, Megafac F 142D

RL: MOA (Modifier or additive use); USES (Uses)

(surfactant in conductive layer; highly antistatic  
laminates and their moldings with good water resistance)

L75 ANSWER 28 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:113031 HCAPLUS

DOCUMENT NUMBER: 132:144370

TITLE: Antistatic layer for imaging element

INVENTOR(S): Majumdar, Debasis; Savage, Dennis J.; Eichorst,  
Dennis J.; Blanton, Thomas N.

PATENT ASSIGNEE(S): Eastman Kodak Company, USA

SOURCE: U.S., 12 pp.

DOCUMENT TYPE: CODEN: USXXAM  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 English  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6025119	A	20000215	US 1998-216187	19981218
EP 1020762	A2	20000719	EP 1999-204144	19991206
EP 1020762	A3	20000906		
EP 1020762	B1	20030730		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
PRIORITY APPLN. INFO.:		US 1998-216187	A	19981218

AB The present invention provides an imaging element which includes a support, an image-forming layer superposed on the support, and an elec. conductive layer superposed on the support. The elec. conductive layer includes a layered siliceous material, an elec. conducting polymer that can intercalate inside or exfoliate the layered siliceous material, and a film-forming binder.

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9020-32-0, Poly(ethylene naphthalate) 9020-73-9 25038-59-9, Poly(ethylene terephthalate), uses

RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with antistatic layers superposed on supports of)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

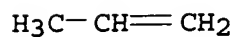
$H_2C=CH_2$

RN 9003-07-0 HCAPLUS

CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

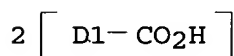
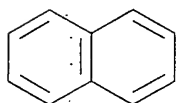
CRN 115-07-1  
CMF C3 H6



RN 9020-32-0 HCAPLUS  
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

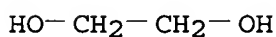
CM 1

CRN 28604-87-7  
CMF C12 H8 O4  
CCI IDS



CM 2

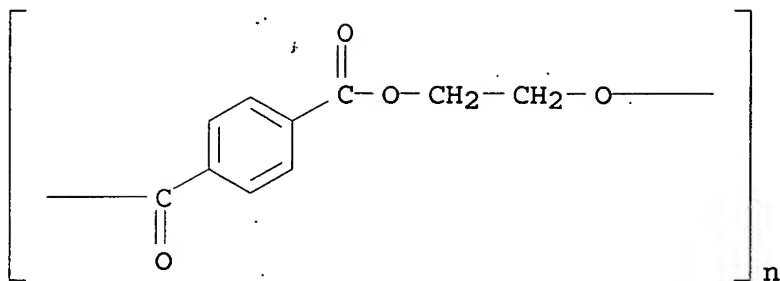
CRN 107-21-1  
CMF C2 H6 O2



RN 9020-73-9 HCAPLUS  
CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25038-59-9 HCAPLUS  
CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM G03C001-89  
 INCL 430529000  
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 ST photog film **antistatic** layer layered siliceous material  
 IT Photographic films  
     (**antistatic** layers contg. layered siliceous materials and elec. conducting polymers for)  
 IT Smectite-group minerals  
     RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with **antistatic** layers contg. elec. conducting polymers and)  
 IT Polycarbonates, uses  
     **Polyesters**, uses  
     Polyvinyl acetals  
     RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with **antistatic** layers superposed on supports of)  
 IT Clays, uses  
     RL: TEM (Technical or engineered material use); USES (Uses) (phyllosilicate; photog. films with **antistatic** layers contg. elec. conducting polymers and)  
 IT 53320-86-8, Laponite  
     RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with **antistatic** layers contg. elec. conducting polymers and)  
 IT 30604-81-0, Polypyrrole 101051-94-9, Polypyrrole compd. with poly(**styrenesulfonic acid**)  
     RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with **antistatic** layers contg. layered siliceous materials and)  
 IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9004-35-7, Cellulose acetate 9004-70-0, Cellulose nitrate 9020-32-0, Poly(ethylene naphthalate) 9020-73-9 25038-59-9, Poly(ethylene terephthalate), uses  
     RL: TEM (Technical or engineered material use); USES (Uses) (photog. films with **antistatic** layers superposed on supports of)

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE



FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L75 ANSWER 29 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 2000:111109 HCAPLUS  
DOCUMENT NUMBER: 132:152992  
TITLE: Multilayer-laminated thermoplastic sheets having  
good antistatic property in low  
humidity environment  
INVENTOR(S): Kobase, Shigeji; Abe, Kazuhiro; Harada,  
Mitsuhiro; Kitagawa, Hironobu  
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000043201	A2	20000215	JP 1998-219117	199808 03
PRIORITY APPLN. INFO.: JP 1998-219117				199808 03

AB The laminated sheets have charge-controlling layers contg. (a) polymers with hydrophilic groups, (b) fatty acid metal salts and/or (c) inert particles, (d) surfactants, and (e) elec.-cond. polymers on at least one side of thermoplastic sheets. The sheets have good antistatic property while keeping good transparency, lubricity, and printability and are esp. suitable for carrier tapes, cover tapes, and containers for elec. materials. Thus, a 2%-solid soln. of sulfonated 2-aminoanisole-2-sulfonic acid homopolymer (I) was blended with a 8%-solid soln. of 48:48:4:80:20 (mol%) di-Me terephthalate-dimethyl isophthalate-5-sodiosulfoisophthalic acid-ethylene glycol-diethylene glycol copolymer (II) at wt. ratio 20:80, then further mixed with Na montanate (III) at wt. ratio III:I = 8:100 and III:II = 20:100 to give a coating. An undrawn poly(ethylene terephthalate) film was coated with the coating (0.1 g/m<sup>2</sup>) and dried at 70° to give test pieces having haze 2.0%, friction coeff. 0.41  $\mu$ s, good antiblocking, and good UV-curable ink printability.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
25038-59-9, Poly(ethylene terephthalate), uses  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(substrates; multilayer-laminated, transparent thermoplastic sheets with antistatic coatings)

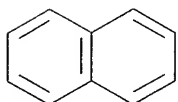
RN 9020-32-0 HCAPLUS  
 CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS



2 [ D1- CO<sub>2</sub>H ]

CM 2

CRN 107-21-1

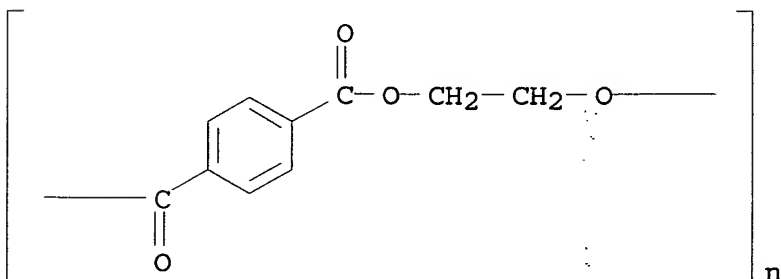
CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

RN 9020-73-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM B32B027-00  
ICS B32B007-02; C08F283-02; C08G063-16; C08G073-00; C08K005-098;  
C08K007-16; C08L101-12; C08L101-14;  
CC 38-3 (Plastics Fabrication and Uses)  
ST thermoplastic sheet laminate **antistatic** coating  
transparency; sulfonated polyaniline **antistatic** coating  
thermoplastic sheet laminate; **polyethylene**  
**terephthalate** sheet **antistatic** coating  
transparency; **sulfonic acid polyester**  
**antistatic** coating transparency; aminoanisoole homopolymer  
**antistatic** coating thermoplastic sheet  
IT **Polyesters, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(acrylic, graft, coatings, blends with sulfonated  
**aminoanisoole****sulfonic acid** homopolymer;  
multilayer-laminated, transparent thermoplastic sheets with  
**antistatic** coatings)  
IT Coating materials  
(**antistatic**; multilayer-laminated, transparent  
thermoplastic sheets with **antistatic** coatings)  
IT Polyanilines  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(coatings, blends with hydrophilic polymers; multilayer-  
laminated, transparent thermoplastic sheets with  
**antistatic** coatings)  
IT Fatty acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(metal salts; multilayer-laminated, transparent thermoplastic  
sheets with **antistatic** coatings)  
IT Laminated plastic films  
(multilayer-laminated, transparent thermoplastic sheets with  
**antistatic** coatings)  
IT **Polyesters, uses**  
RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)  
(substrates; multilayer-laminated, transparent thermoplastic  
sheets with **antistatic** coatings)  
IT **Polyesters, uses**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(**sulfonic acid** group-contg., blends with  
sulfonated **aminoanisoole****sulfonic acid**  
homopolymer; multilayer-laminated, transparent thermoplastic  
sheets with **antistatic** coatings)  
IT 167860-86-8DP, 2-Aminoanisoole-4-**sulfonic acid**  
homopolymer, sulfonated  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP

- (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coatings, blends with **polyesters** with **sulfonic acid** groups; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 82200-41-7P, Diethylene glycol-dimethyl isophthalate-dimethyl terephthalate-ethylene glycol-5-sodiosulfoisophthalic acid copolymer  
197455-24-6P, Acrylic acid-dimethyl isophthalate-dimethyl terephthalate-ethyl acrylate-ethylene glycol-fumaric acid-neopentyl glycol graft copolymer triethylamine salt  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(coatings, blends with sulfonated **aminoanisolesulfonic acid** homopolymer; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 9003-53-6, Polystyrene  
RL: MOA (Modifier or additive use); USES (Uses)  
(crosslinked, microspheres; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 7631-86-9, Silica, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(microspheres; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 25728-82-9, Sodium montanate  
RL: MOA (Modifier or additive use); USES (Uses)  
(multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)
- IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
25038-59-9, Poly(ethylene terephthalate), uses 26780-49-4, Ethylene glycol-neopentyl glycol-terephthalic acid copolymer  
73714-40-6, Cyclohexanedimethanol-ethylene glycol-terephthalic acid copolymer  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(substrates; multilayer-laminated, transparent thermoplastic sheets with **antistatic** coatings)

L75 ANSWER 30 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2000:37817 HCAPLUS

DOCUMENT NUMBER: 132:94376

TITLE: Electrically conductive **polyester**  
-based sheet for carrier tape in packaging of  
electronic device

INVENTOR(S): Yonezawa, Masateru; Matsui, Ichiro

PATENT ASSIGNEE(S): Sumitomo Bakelite Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000015764	A2	20000118	JP 1998-183061	19980629
JP 3354871	B2	20021209	JP 1998-183061	19980629

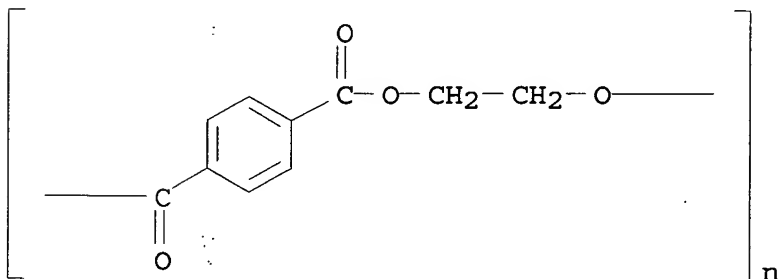
PRIORITY APPLN. INFO.: JP 1998-183061

AB The sheet consists of a substrate made of an **antistatic** satd. **polyester** compn. and an elec. conductive resin coating contg. carbon black on 1 side of the substrate, wherein the surface sp. resistivity on the coating side is from  $\geq 1 + 10^4 \Omega$  to  $< 1 + 10^8 \Omega$  and that on the other side is from  $\geq 1 + 10^4 \Omega$  to  $< 1 + 10^{14} \Omega$ . The sheet is used as a carrier tape in electronic device packaging and the package consists of electronic parts set in cavities on the carrier tape and sealed with a cover tape. Thus, 100:12 mixt. of PET (I; MA 530H) and **antistatic** agent (Pelestat 6321) and I were coextruded to give a double layer substrate, which was gravure-coated with 30:6:64 mixt. of vinyl acetate-vinyl chloride copolymer, carbon black, and mixed solvent contg. other additives to give the sheet showing good folding strength, i.e., prevention of cracking in  $\geq 501$  repeated foldings.

IT 25038-59-9, PET (**polyester**), uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (MA 530H; **antistatic** satd. **polyester** sheet with elec. conductive coating contg. carbon black for carrier tape for electronic device packaging)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)

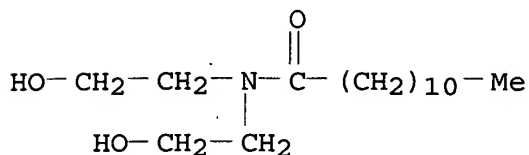


IT 120-40-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antistatic agent; **antistatic** satd. **polyester** sheet with elec. conductive coating contg.)

carbon black for carrier tape for electronic device packaging)

RN 120-40-1 HCAPLUS

CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)



IT 24968-12-5, Novadur 5010 26062-94-2, Butylene glycol-terephthalic acid copolymer

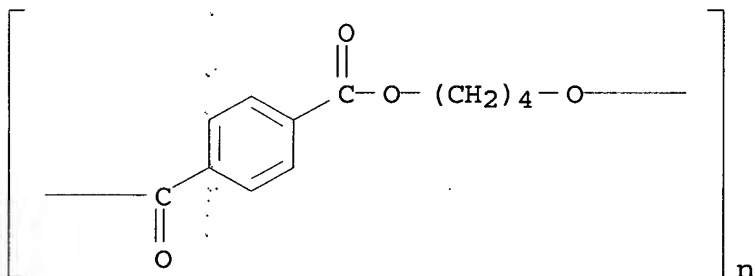
RL: TEM (Technical or engineered material use); USES (Uses)

(antistatic satd. polyester sheet with elec.

conductive coating contg. carbon black for carrier tape for electronic device packaging)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



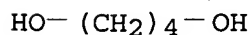
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

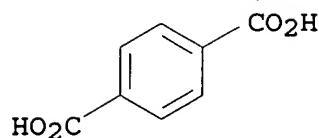
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC ICM B32B027-36  
ICS B32B027-18; H01B005-14
- CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 76
- ST elec conductive **polyester** sheet carrier tape; carbon black  
elec conductor coating; satd **polyester antistatic**  
sheet elec conductive; PET sheet elec conductive coating; vinyl  
acetate chloride copolymer coating; electronic device packaging  
**antistatic** carrier tape
- IT **Polyesters**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(MA 530H; **antistatic** satd. **polyester** sheet  
with elec. conductive coating contg. carbon black for carrier  
tape for electronic device packaging)
- IT Electronic packages  
(**antistatic** satd. **polyester** sheet with elec.  
conductive coating contg. carbon black for carrier tape for  
electronic device packaging)
- IT **Polyesters**, uses  
RL: TEM (Technical or engineered material use); USES (Uses)  
(**antistatic** satd. **polyester** sheet with elec.  
conductive coating contg. carbon black for carrier tape for  
electronic device packaging)
- IT Coating materials  
(**antistatic**; on **antistatic** satd.  
**polyester** sheet with elec. conductive coating contg.  
carbon black for carrier tape for electronic device packaging)
- IT Coating materials  
(elec. conductive; **antistatic** satd. **polyester**  
sheet with elec. conductive coating contg. carbon black for  
carrier tape for electronic device packaging)
- IT Carbon black, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(elec. conductor; **antistatic** satd. **polyester**  
sheet with elec. conductive coating contg. carbon black for  
carrier tape for electronic device packaging)
- IT Synthetic rubber, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**polyamide-polyester-polyether**, Pelestat  
6321; **antistatic** agent; **antistatic** satd.  
**polyester** sheet with elec. conductive coating contg.  
carbon black for carrier tape for electronic device packaging)
- IT **Polyester** rubber

RL: MOA (Modifier or additive use); USES (Uses)  
 (polyamide-polyether-, Pelestat 6321;  
 antistatic agent; antistatic satd.  
 polyester sheet with elec. conductive coating contg.  
 carbon black for carrier tape for electronic device packaging)

IT 25038-59-9, PET (polyester), uses  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (MA 530H; antistatic satd. polyester sheet  
 with elec. conductive coating contg. carbon black for carrier  
 tape for electronic device packaging)

IT 120-40-1 173720-87-1, Chemistat 3100  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antistatic agent; antistatic satd.  
 polyester sheet with elec. conductive coating contg.  
 carbon black for carrier tape for electronic device packaging)

IT 24968-12-5, Novadur 5010 25640-14-6, PETG 6763  
 26062-94-2, Butylene glycol-terephthalic acid copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (antistatic satd. polyester sheet with elec.  
 conductive coating contg. carbon black for carrier tape for  
 electronic device packaging)

IT 9003-22-9, Vinyl acetate-vinyl chloride copolymer  
 RL: TEM (Technical or engineered material use); USES (Uses)  
 (binder in coating; antistatic satd. polyester  
 sheet with elec. conductive coating contg. carbon black for  
 carrier tape for electronic device packaging)

L75 ANSWER 31 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1999:565242 HCAPLUS  
 DOCUMENT NUMBER: 131:200800  
 TITLE: Thermoplastic polyester compositions  
 with excellent antibacterial properties  
 INVENTOR(S): Oji, Kazuyoshi  
 PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11241007	A2	19990907	JP 1998-45215	199802 26
PRIORITY APPLN. INFO.:			JP 1998-45215	199802 26

AB Title compns. contain Ag-contg. H2O-sol. glass powders. Thus, 95



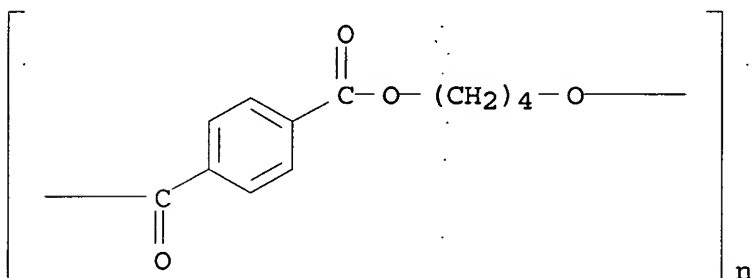
parts poly(butylene terephthalate) and 3 parts Amorclean P 10 (Ag-contg. H<sub>2</sub>O-sol. glass powders) were melt kneaded, pelletized, and injection molded to give test pieces showing excellent bactericidal effect against Escherichia coli and Staphylococcus aureus without deterioration of its moldability and mech. properties.

IT 24968-12-5, Poly(butylene terephthalate), sru  
26062-94-2

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

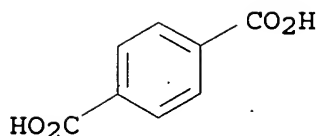
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC ICM C08L067-02  
ICS C08K003-22; C08K005-42; C08K005-52
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 5, 39
- ST silver glass antibacterial **polyester**
- IT **Sulfonic acids, uses**  
RL: MOA (Modifier or additive use); USES (Uses)  
(C14-17-sec-alkanesulfonic, sodium salts, **antistatic** agents, Hostapur SAS 93; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Antibacterial agents  
**Antistatic agents**  
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Glass powders  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyesters, properties**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyester rubber**  
Synthetic rubber, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(butanediol-di-Me terephthalate-polytetramethylene glycol, block, block; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT **Polyester rubber**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(butanediol-di-Me terephthalate-polytetramethylene glycol, block; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT Glass, uses  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(silver-contg., Amorclean P 10; antibacterial **polyesters**

- contg. silver-contg. water-sol. glass)
- IT 24968-12-5, Poly(butylene terephthalate), sru  
26062-94-2  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 98-11-3D, **Benzenesulfonic acid**, alkyl derivs., salts, uses 7664-38-2D, Phosphoric acid, alkyl esters, alkali metal salts, uses 7664-93-9D, Sulfuric acid, alkyl esters, alkali metal salts, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(**antistatic agents**; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 7440-22-4, Silver, uses  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(glass contg.; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 1303-86-2, Boron oxide (b2o3), uses 1304-28-5, Barium oxide, uses 1305-78-8, Calcium oxide (cao), uses 1309-48-4, Magnesium oxide, uses 1313-59-3, Sodium oxide (na2o), uses 1314-13-2, Zinc oxide, uses 1314-56-3, Phosphorus oxide (p2o5), uses 1344-28-1, Aluminum oxide (Al2O3), uses 7631-86-9, Silica, uses 12136-45-7, Potassium oxide (k2o), uses 13463-67-7, Titania, uses 20667-12-3, Silver oxide  
RL: BUU (Biological use, unclassified); MOA (Modifier or additive use); BIOL (Biological study); USES (Uses)  
(glass contg.; antibacterial **polyesters** contg. silver-contg. water-sol. glass)
- IT 106465-17-2, 1,4-Butanediol-dimethyl terephthalate-polytetramethylene glycol block copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(rubber; antibacterial **polyesters** contg. silver-contg. water-sol. glass)

L75 ANSWER 32 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:463333 HCAPLUS

DOCUMENT NUMBER: 131:130679

TITLE: Poly(ether-ester-amides), antistatic agents, and thermoplastic resin compositions containing them

INVENTOR(S): Omae, Tadayuki; Kitano, Takafumi; Azumano, Tetsuji; Takeuchi, Shuji

PATENT ASSIGNEE(S): Arakawa Chemical Industries, Ltd., Japan; Marubishi Oil Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11199667	A2	19990727	JP 1998-5943	19980114
PRIORITY APPLN. INFO.:				19980114

- AB The poly(ether-ester-amides) showing reduced viscosity ( $\eta$ ; 0.5% HCO<sub>2</sub>H soln., 25°) 1-4 are obtained by reaction of (A) amide-forming components selected from aminocarboxylic acids, lactams, and diamine-dicarboxylic acid salts, (B) polyoxyalkylene glycols, (C) dicarboxylic acids, and (D) compds. having  $\geq 3$  functional groups selected from OH, CO<sub>2</sub>H, and NH<sub>2</sub>. Molded products obtained by injection molding or extrusion molding of the title compns. are also claimed. Thus, 10 parts of a polymer ( $\eta$  1.98, yellowness index 23, m.p. 130°), prepd. by polymn. of caprolactam 2022.9, adipic acid 350.4, polyethylene glycol (no.-av. mol. wt. 300) 720.0, and polyoxyethylene glycerin ether 22.3 g in the presence of LiCl, Zr carbonate, and Irganox 1010, was mixed with 90 parts PMMA (Sumipex HT 013E) and antioxidants, melt-kneaded, pelletized, and injection molded to give a test piece showing haze 3.9%, tensile strength 394 g/cm<sup>2</sup>, flexural modulus 21,400 kg/cm<sup>2</sup>, and good antistatic properties.
- IC ICM C08G069-44  
 ICS C08K003-16; C08K005-42; C08L025-04; C08L033-04; C08L101-00; C08L077-12
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyether polyester polyamide blend yellowing resistance; antistatic PMMA polyether polyester polyamide blend; polyoxyethylene polyester polyamide antistatic agent
- IT Sulfonic acids, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (alkanesulfonic, sodium salts; yellowing-resistant poly(ether-ester-amide) antistatic agents for thermoplastic resins)
- IT Polyoxyalkylenes, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
 (polyamide-polyester-; yellowing-resistant poly(ether-ester-amide) antistatic agents for thermoplastic resins)
- IT Polyesters, preparation

- RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); PREP (Preparation); USES (Uses)  
 (polyamide-polyoxyalkylene-; yellowing-resistant  
 poly(ether-ester-amide)  
 antistatic agents for thermoplastic resins)
- IT Polyamides, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); PREP (Preparation); USES (Uses)  
 (polyester-polyoxyalkylene-; yellowing-resistant  
 poly(ether-ester-amide)  
 antistatic agents for thermoplastic resins)
- IT Impact-resistant materials  
 (polystyrene; yellowing-resistant poly(ether-  
 ester-amide) antistatic agents for  
 thermoplastic resins)
- IT Antistatic agents  
 Yellowing prevention  
 (yellowing-resistant poly(ether-ester  
 -amide) antistatic agents for thermoplastic  
 resins)
- IT Alkaline earth halides  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (yellowing-resistant poly(ether-ester  
 -amide) antistatic agents for thermoplastic  
 resins)
- IT Polyoxyphenylenes  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (yellowing-resistant poly(ether-ester  
 -amide) antistatic agents for thermoplastic  
 resins)
- IT 9010-88-2  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (Sumipex HT 013E, Sumipex EX; yellowing-resistant poly(  
 ether-ester-amide) antistatic  
 agents for thermoplastic resins)
- IT 100-42-5D, Styrene, polymers  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (impact-resistant; yellowing-resistant poly(  
 ether-ester-amide) antistatic  
 agents for thermoplastic resins)
- IT 232944-11-5P, Adipic acid-caprolactam-polyethylene  
 glycol-polyoxyethylene glycerin ether copolymer 232944-13-7P,  
 Adipic acid-caprolactam-polyethylene glycol-trimellitic  
 anhydride copolymer 232944-16-0P, Adipic acid-caprolactam-glycerin-  
 polyethylene glycol copolymer 232944-18-2P,  
 Caprolactam-glycerin-polyethylene glycol-terephthalic acid  
 copolymer 234781-31-8P, Adipic acid-bisphenol A ethylene oxide  
 adduct-caprolactam-polyoxyethylene glycerin ether copolymer  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); PREP (Preparation); USES (Uses)  
 (yellowing-resistant poly(ether-ester  
 -amide) antistatic agents for thermoplastic

resins)  
IT 7447-41-8, Lithium chloride, uses 25155-30-0 211059-20-0, Denon  
V 51  
RL: MOA (Modifier or additive use); USES (Uses)  
(yellowing-resistant poly(ether-ester  
-amide) antistatic agents for thermoplastic  
resins)  
IT 211059-01-7, Artlex HT 4500 234781-30-7, JPS-H 554  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(yellowing-resistant poly(ether-ester  
-amide) antistatic agents for thermoplastic  
resins)

L75 ANSWER 33 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1999:81349 HCAPLUS

DOCUMENT NUMBER: 130:183255

TITLE: Compatible antistatic agents for use  
in transparent plastic compositions and the  
plastic compositions

INVENTOR(S): Kawaharada, Yukihiro; Yamazaki, Tetsuya

PATENT ASSIGNEE(S): Dainippon Ink and Chemicals, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

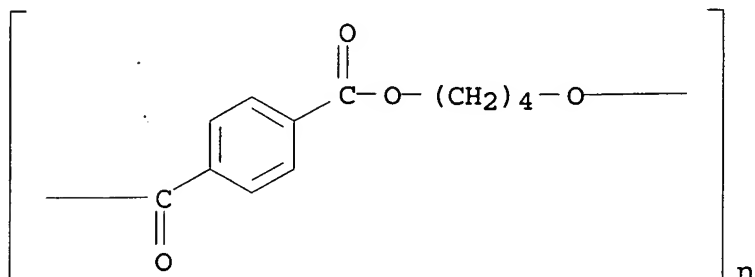
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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-----				
JP 11029763	A2	19990202	JP 1997-203022	199707 29
PRIORITY APPLN. INFO.:			JP 1997-126969	A 199705 16

AB The agents are polyether-esters bearing org. sulfonic  
acid salt groups and having melt viscosity  
( $\eta_{\text{melt}}$ ; at 280°) of 50-5000 Pa·s. Thus, an  
antistatic agent with  $\eta_{\text{melt}}$  274 Pa·s was prepd.  
from a polyethylene glycol (Mn 2000), di-Me terephthalate,  
di-Me sulfoisophthalate Ba salt and ethylene glycol. Blending 90  
parts Iupilon S 3000 (polycarbonate) with 10 parts the agent at  
270°, pelletizing and injection molding gave test pieces with  
surface resistivity 6x10<sup>12</sup>, 6x10<sup>12</sup> and 6x10<sup>12</sup> initially, after  
washing and after 3 mo., resp., and transparency 72%.

IT 24968-12-5 26062-94-2, PBT monomer based  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(compatible antistatic agents for use in transparent

plastic compns. and plastic compns.)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

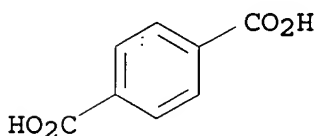
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C09K003-16  
 ICS C08L025-04; C08L067-02; C08L069-00; C08L101-00  
 CC 37.6 (Plastics Manufacture and Processing)  
 ST transparent plastic antistatic agent polyether  
 polyester sulfonate  
 IT Antistatic agents  
 Transparent materials  
 (compatible antistatic agents for use in transparent  
 plastic compns. and plastic compns.)

- IT Polycarbonates, properties  
Polyesters, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(polyester-, sulfonic acid salt group-contg.; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT Polyesters, preparation  
Polyesters, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(polyoxyalkylene-, sulfonic acid salt group-contg.; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT 204134-07-6P, Bisphenol A ethoxylate-dimethyl sulfoisophthalate calcium salt-dimethyl terephthalate-ethylene glycol copolymer  
220654-63-7P, Dimethyl sulfoisophthalate barium salt-dimethyl terephthalate-ethylene glycol-polyethylene glycol block copolymer  
220654-66-0P 220654-71-7P, Dimethyl sulfoisophthalate zinc salt-dimethyl terephthalate-ethylene glycol-polyethylene glycol block copolymer  
220654-74-0P  
220654-76-2P 220654-79-5P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
(antistatic agents; compatible antistatic agents for use in transparent plastic compns. and plastic compns.)
- IT 9003-53-6 9010-92-8, Methacrylic acid-styrene copolymer  
24936-68-3, properties 24968-12-5 25037-45-0, Bisphenol A-carbonic acid copolymer 26062-94-2, PBT monomer based  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(compatible antistatic agents for use in transparent plastic compns. and plastic compns.)

L75 ANSWER 34 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:564141 HCAPLUS  
DOCUMENT NUMBER: 129:182065  
TITLE: Laminatable backing substrates containing paper  
desizing agents for simulated  
photographic-quality prints  
INVENTOR(S): Malhotra, Shadi L.  
PATENT ASSIGNEE(S): Xerox Corp., USA  
SOURCE: U.S., 24 pp.  
CODEN: USXXAM  
DOCUMENT TYPE: Patent



LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5795696	A	19980818	US 1996-720656	19961002

PRIORITY APPLN. INFO.: US 1996-720656  
 19961002

AB Disclosed is a method of creating simulated photog.-quality prints using non-photog. imaging, said method comprising (a) providing a coated transparent substrate having a wrong reading toner image formed thereon using a non-photog. imaging process, (b) providing one surface of a backing substrate with a first coating comprising a polymeric adhesive binder having a glass transition temp. less than 55°, an antistatic agent, a lightfastness-inducing agent, and an optional filler, (c) providing said one surface of said backing substrate with a second coating in contact with said first coating wherein said second coating comprises a hydrophilic polymer having a m.p. of greater than 50°, and a paper desizing agent material having a m.p. of less than 75°, (d) providing a coating on another surface of said protective member opposite said one surface which is luminescent, antistatic, scuff resistant, and lightfast, and (e) adhering said substrates to each other by the application of heat and pressure.

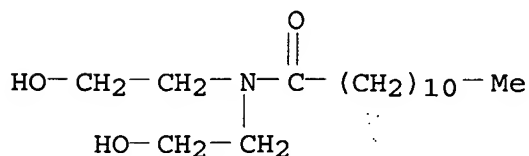
IT 120-40-1, Lauric diethanolamide

9002-88-4 9010-79-1, Ethylene-propylene copolymer

RL: TEM (Technical or engineered material use); USES (Uses)  
 (laminatable backing substrates for simulated photog.-quality print prepn. contg.)

RN 120-40-1 HCAPLUS

CN Dodecanamide, N,N-bis(2-hydroxyethyl)- (6CI, 8CI, 9CI) (CA INDEX NAME)

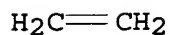


RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

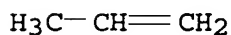
CRN 74-85-1  
CMF C2 H4



RN 9010-79-1 HCAPLUS  
CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1  
CMF C3 H6



CM 2

CRN 74-85-1  
CMF C2 H4



IT 9003-07-0, Polypropylene 9020-32-0,  
Polyethylene naphthalate 9020-73-9  
RL: TEM (Technical or engineered material use); USES (Uses)  
(transparent supports for simulated photog.-quality prints with  
laminatable backing substrates contg. paper desizing agents)  
RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

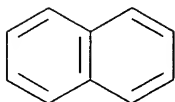
CRN 115-07-1  
CMF C3 H6



RN 9020-32-0 HCAPLUS  
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 28604-87-7  
CMF C12 H8 O4  
CCI IDS



2 [ D1-CO<sub>2</sub>H ]

CM 2

CRN 107-21-1  
CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

RN 9020-73-9 HCAPLUS  
CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC ICM G03G013-16

INCL 430124000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

IT Aminoplasts

Polyamides, uses

Polyoxyalkylenes, uses

Polyvinyl butyrals

RL: TEM (Technical or engineered material use); USES (Uses)

(laminatable backing substrates for simulated photog.-quality  
print prepn. contg.)

IT Polycarbonates, uses

Polyesters, uses

Polyimides, uses

Polysulfones, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(transparent supports for simulated photog.-quality prints with  
laminatable backing substrates contg. paper desizing agents)

IT 88-24-4, 2,2'-Methylenebis(6-tert-butyl-4-ethylphenol) 88-27-7,  
2,6-Di-tert-butyl-4-(dimethylaminomethyl)phenol 112-80-1D,  
9-Octadecenoic acid (9Z)-, N-hydroxyethylimidazoline edrivs., uses

119-47-1, 2,2'-Methylenebis(6-tert-butyl-4-methylphenol)  
120-40-1, Lauric diethanolamide  
122-32-7, Glyceryl trioleate 123-28-4, Didodecyl  
3,3'-thiodipropionate 142-78-9, Lauric monoethanolamide  
471-34-1, Calcium carbonate, uses 577-11-7, Sodium dioctyl  
sulfosuccinate 693-36-7, Dioctadecyl 3,3'-thiodipropionate  
695-10-3D, coco and oleic and tall oil derivs. 1314-13-2, Zinc  
oxide, uses 1314-23-4, Zirconium oxide, uses 1314-98-3, Zinc  
sulfide, uses 1338-39-2, Sorbitan monolaurate 1338-43-8,  
Sorbitan monooleate 1344-28-1D, Alumina, hydrated 1709-70-2,  
1,3,5-Trimethyl-2,4,6-tris(3,5-di-tert-butyl-4-hydroxybenzyl)benzene  
1843-05-6 4229-35-0 7631-86-9, Silica, uses 7727-43-7, Barium  
sulfate 7789-75-5, Calcium fluoride, uses 9002-88-4  
9002-92-0, Lauryl alcohol ethoxylate 9003-08-1,  
Formaldehyde-melamine copolymer 9003-09-2, Poly(methyl vinyl  
ether) 9003-11-6, Ethylene oxide-propylene oxide copolymer  
9003-17-2, Polybutadiene 9003-17-2D, Polybutadiene,  
dicarboxy-terminated 9003-17-2D, Polybutadiene, phenyl-terminated  
9003-18-3, Acrylonitrile-butadiene copolymer 9003-20-7, Poly(vinyl  
acetate) 9003-21-8, Poly(methyl acrylate) 9003-27-4 9003-28-5,  
Poly(1-butene) 9003-31-0, Polyisoprene 9003-32-1, Poly(ethyl  
acrylate) 9003-42-3, Poly(ethyl methacrylate) 9003-44-5,  
Poly(isobutyl vinyl ether) 9003-47-8, Poly(vinylpyridine)  
9003-49-0, Poly(butyl acrylate) 9003-53-6, Polystyrene  
9003-54-7, Acrylonitrile-styrene copolymer 9003-55-8,  
Butadiene-styrene copolymer 9003-56-9, Acrylonitrile-butadiene-  
styrene copolymer 9003-63-8, Poly(butyl methacrylate) 9003-77-4,  
Poly(2-ethylhexyl acrylate) 9003-95-6, Poly(vinyl stearate)  
9004-36-8, Cellulose acetate butyrate 9004-38-0, Cellulose acetate  
hydrogen phthalate 9004-41-5, Cyanoethylated cellulose  
9004-48-2, Cellulose propionate 9004-57-3, Ethylcellulose  
9004-74-4 9004-81-3, Poly(ethylene glycol) monolaurate  
9004-96-0, Poly(ethylene glycol) monooleate 9004-98-2 9005-02-1,  
Poly(ethylene glycol) dilaurate 9005-07-6, Poly(ethylene glycol)  
dioleate 9005-64-5, Poly(oxyethylene) sorbitan monolaurate  
9005-65-6, Poly(oxyethylene) sorbitan monooleate 9005-70-3,  
Poly(oxyethylene) sorbitan trioleate 9006-26-2, Maleic  
anhydride-ethylene copolymer 9010-79-1, Ethylene  
-propylene copolymer 9010-85-9,  
Isobutylene-isoprene copolymer 9010-86-0, Ethylene-ethyl acrylate  
copolymer 9011-05-6, Formaldehyde-urea copolymer 9011-05-6D,  
Formaldehyde-urea copolymer, alkylated 9011-06-7, Vinyl  
chloride-vinylidene chloride copolymer 9011-14-7, Poly(methyl  
methacrylate) 9011-16-9, Maleic anhydride-methyl vinyl ether  
copolymer 9011-53-4, Butyl methacrylate-isobutyl methacrylate  
copolymer 9016-45-9, Nonyl phenol ethoxylate 9017-21-4,  
Poly(vinyltoluene) 9019-70-9, Styrene-vinylpyridine copolymer  
9022-52-0, Poly(chlorostyrene) 9036-19-5, Octyl phenol ethoxylate  
9036-63-9, Poly(isooctyl acrylate) 9050-31-1, Hydroxypropylmethyl  
cellulose phthalate 9053-30-9, Poly(tert-butylstyrene)  
10101-39-0 10595-72-9, Ditridecyl 3,3'-thiodipropionate  
13463-67-7, Titanium dioxide, uses 14995-49-4 16432-81-8

16545-54-3 24936-41-2, Poly(4-methylstyrene) 24936-97-8,  
Poly(1,4-butylene adipate) 24937-05-1, Poly(ethylene adipate)  
24937-78-8, Ethylene-vinyl acetate copolymer 24938-37-2,  
Poly(ethylene adipate) 24938-67-8, Poly(2,6-dimethyl p-phenylene  
oxide) 24969-10-6, Epichlorohydrin-ethylene oxide copolymer  
24979-82-6, Poly(propyl acrylate) 24991-55-7, Poly(ethylene glycol  
dimethyl ether) 25014-31-7, Poly( $\alpha$ -methylstyrene)  
25035-78-3, Poly(diallyl isophthalate) 25035-84-1, Poly(vinyl  
propionate) 25036-21-9, Poly(benzyl acrylate) 25037-78-9,  
Ethylene-vinyl chloride copolymer 25053-15-0, Poly(diallyl  
phthalate) 25086-48-0, Vinyl acetate-vinyl alcohol-vinyl chloride  
copolymer 25087-17-6, Poly(hexyl methacrylate) 25103-87-1,  
Poly(1,4-butylene adipate) 25119-62-4, Allyl alcohol-styrene  
copolymer 25153-40-6, Maleic acid-methyl vinyl ether copolymer  
25189-01-9, Poly(phenyl methacrylate) 25213-24-5, Vinyl  
acetate-vinyl alcohol copolymer 25213-39-2, Butyl  
methacrylate-styrene copolymer 25232-27-3, Poly(tert-butyl  
acrylate) 25249-16-5, Poly(2-hydroxyethyl methacrylate)  
25266-02-8, Maleic anhydride-1-octadecene copolymer 25266-13-1,  
Poly(octyl acrylate) 25322-68-3 25322-69-4 25496-72-4,  
Glyceryl monooleate 25569-53-3, Poly(ethylene succinate)  
25587-82-0, Poly(2,4,6-tribromostyrene) 25609-74-9, Poly(propyl  
methacrylate) 25637-84-7, Glyceryl dioleate 25639-21-8,  
Poly(octadecyl methacrylate) 25667-11-2, Poly(ethylene succinate)  
25719-51-1, Poly(2-ethylhexyl methacrylate) 25719-52-2,  
Poly(lauryl methacrylate) 25721-76-0, Poly(ethylene glycol  
dimethacrylate) 25852-47-5 25852-49-7, Poly(  
propylene glycol dimethacrylate) 25986-77-0,  
Poly(octadecyl acrylate) 26022-14-0, Poly(2-hydroxyethyl acrylate)  
26124-32-3, Poly(isopropyl acrylate) 26246-92-4, Poly(lauryl  
acrylate) 26264-05-1, Isopropylamine dodecylbenzenesulfonate  
26264-06-2, Calcium dodecylbenzenesulfonate 26266-58-0, Sorbitan  
trioleate 26403-72-5, Poly(ethylene glycol diglycidyl ether)  
26570-48-9 26715-88-8, Poly(vinyl pivalate) 26716-20-1,  
Poly(tert-butylaminoethyl methacrylate) 26760-99-6, Poly(ethylene  
azelate) 26762-07-2, Poly(ethylene azelate) 27103-47-5,  
Poly(hexyl acrylate) 27458-65-7, Poly(cyclohexyl acrylate)  
27516-89-8 28158-21-6, Poly(trimethylene succinate) 28265-35-2,  
Butadiene-maleic acid copolymer 28406-56-6, Poly(2-  
vinyl naphthalene) 28628-64-0, Poly(2-methoxyethyl acrylate)  
28725-67-9, Poly(trimethylene succinate) 28725-68-0 29320-53-4,  
Poly(decyl methacrylate) 29500-86-5, Poly(decyl acrylate)  
29963-76-6, Poly[2-(4-benzoyl-3-hydroxyphenoxy)ethyl acrylate]  
32628-06-1 36221-42-8, Poly(trimethylene adipate) 36568-42-0,  
Poly(trimethylene adipate) 37200-12-7, Poly(isodecyl methacrylate)  
39350-27-1, Poly(bromostyrene) 40601-76-1 52234-59-0,  
Poly(trimethylene glutarate) 52256-48-1, Poly(trimethylene  
glutarate) 52985-34-9, Polychloroisoprene 53761-76-5, Butyl  
methacrylate-4-vinylpyridine copolymer 54841-40-6, Poly(isodecyl  
acrylate) 62501-03-5, Poly(hydroxypropyl acrylate) 66987-22-2,  
Poly(vinyl neodecanoate) 67845-93-6, Hexadecyl  
3,5-di-tert-butyl-4-hydroxybenzoate 71599-31-0,

Poly(methoxystyrene) 72779-48-7, Hydroxyethylcellulose  
methacrylate 79720-19-7 82451-48-7 91313-01-8 93792-59-7,  
Hydroxypropylmethyl cellulose succinate 106917-30-0 106917-31-1  
111483-45-5, Hydroxyethylcellulose acrylate 122269-49-2, Ethylene  
oxide-isoprene block copolymer 145332-37-2, Ethylene  
oxide-2-hydroxyethyl methacrylate block copolymer 201798-70-1,  
Ethylene oxide-hydroxypropyl methacrylate block copolymer  
RL: TEM (Technical or engineered material use); USES (Uses)  
(laminatable backing substrates for simulated photog.-quality  
print prepn. contg.)

IT 9002-86-2, Poly(vinyl chloride) 9003-07-0,  
Polypropylene 9012-09-3, Cellulose triacetate  
9020-32-0, Polyethylene naphthalate  
9020-73-9 24981-14-4, Poly(vinyl fluoride)  
RL: TEM (Technical or engineered material use); USES (Uses)  
(transparent supports for simulated photog.-quality prints with  
laminatable backing substrates contg. paper desizing agents)

REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L75 ANSWER 35 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:427940 HCAPLUS

DOCUMENT NUMBER: 129:162263

TITLE: Antistatic thermoplastic resin  
composition

INVENTOR(S): Osaki, Tadayuki; Hosoda, Kenichi; Kitatono,  
Kaoru; Komori, Yoshiyuki; Hine, Yoshimitsu;  
Kitano, Takafumi

PATENT ASSIGNEE(S): Marubishi Oil Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10176115	A2	19980630	JP 1996-341581	199612 20
PRIORITY APPLN. INFO.:				JP 1996-341581
				199612 20

AB The title compns. are prepd. by combining and melt-kneading (A)  
80-95 parts thermoplastic resin, (B) 3-15 parts polyether-ester-  
amide, (C) 0.3-5 parts alkylene oxide oligomer monoalkyl ether  
(no.-av. mol. wt. 500-5000), (D) 0.1-3 parts 1-5:1 styrene-maleic  
anhydride copolymer oligomer (no.-av. mol. wt. 1000-4000), and (E)

0-2 parts org. sulfonic acid alkali metal salts, where the total of A-E is 100 parts, and with wt. ratio of C:D is 50-90:10-50. The compns. have semipermanent, antistatic properties and good mech. and thermal properties.

- IC ICM C08L101-00  
ICS C08G069-44; C08L077-02; C08L101-00; C08L077-12; C08L071-02;  
C08L025-08
- CC 37-6 (Plastics Manufacture and Processing)
- ST thermoplastic compn antistatic;  
polyetheresteramide compn antistatic;  
oligooxyalkylene monoalkyl ether antistatic agent; styrene  
maleic anhydride oligomer; alkali sulfonate antistatic  
agent
- IT Sulfonates  
RL: MOA (Modifier or additive use); USES (Uses)  
(alkali metal; antistatic thermoplastic resin compn.)
- IT Antistatic agents  
(antistatic thermoplastic resin compn.)
- IT Acrylic polymers, properties  
Polycarbonates, properties  
Polyoxyalkylenes, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic thermoplastic resin compn.)
- IT Polyoxyphenylenes  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(modified; antistatic thermoplastic resin compn.)
- IT Polyethers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyester-; antistatic  
thermoplastic resin compn.)
- IT Synthetic rubber, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyester-polyether, MAP-55,  
MAP-65, Pelestat 7490; antistatic thermoplastic resin  
compn.)
- IT Polyester rubber  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyether-, MAP-55, MAP-65, Pelestat 7490;  
antistatic thermoplastic resin compn.)
- IT Polyesters, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyether-; antistatic  
thermoplastic resin compn.)
- IT Polyamides, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyester-polyether-; antistatic  
thermoplastic resin compn.)
- IT Alkali metal salts  
RL: MOA (Modifier or additive use); USES (Uses)  
(sulfonates; antistatic thermoplastic resin compn.)
- IT Plastics, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(thermoplastics; antistatic thermoplastic resin compn.)

IT 25155-30-0, Sodium dodecylbenzenesulfonate  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (Elecatt S 412; antistatic thermoplastic resin compn.)

IT 9010-88-2  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (Sumipex EX; antistatic thermoplastic resin compn.)

IT 211059-20-0, Denon V 51  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antistatic thermoplastic resin compn.)

IT 100-42-5D, Styrene, rubber-modified polymers 9004-74-4, Uniox  
 M-1000 9011-13-6, Styrene-maleic anhydride copolymer 24936-68-3,  
 Calibre 301-10, properties 25037-45-0 25322-68-3,  
 Polyoxyethylene glycol 160170-90-1, Sumibrite M 584 211059-01-7,  
 Artlex HT 4500  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (antistatic thermoplastic resin compn.)

L75 ANSWER 36 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1998:214602 HCAPLUS

DOCUMENT NUMBER: 128:258095

TITLE: Internal modifiers for styrene resin molded  
 products with improved electrostatic coatability  
 and water resistance of coatings for vehicles

INVENTOR(S): Kamiyama, Shiro; Ohama, Katsuki; Masuda, Hisa;  
 Okata, Takeo; Inada, Eiji

PATENT ASSIGNEE(S): Honda Motor Co., Ltd., Japan; Sanyo Chemical  
 Industries Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10087931	A2	19980407	JP 1996-240752	199609 11
JP 3051344	B2	20000612		
WO 9946328	A1	19990916	WO 1998-JP957	199803 09
W: CA, US				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
ES 2210723	T3	20040701	ES 1998-905814	199803 09

PRIORITY APPLN. INFO.: JP 1996-240752 A

MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006



199609  
11

EP 1998-905814 A

199803  
09

- AB The modifiers comprise (A) 100 parts arom. ring-contg. **poly(ether-ester-amides)** having reduced viscosity 0.5-4.0 (0.5% m-cresol soln., 25°) derived from carboxy-terminated **polyamides** (Mn 500-5000) and bisphenol-alkylene oxide adducts (Mn 1600-3000) and (B) 5-100 parts modified vinyl copolymers composed of **sulfonic acid (salt)** group-contg. vinyl monomers and other vinyl comonomers having functional groups reactive with the **poly(ether-ester-amides)**, where the polymers may react each other. Thus,  $\epsilon$ -caprolactam 83.5, bisphenol A-ethylene oxide adduct (Mn 2000) 192, and terephthalic acid 16.5 parts were polymd. to give a **poly(ether-ester-amide)** (I; reduced viscosity 2.10), sep., acrylonitrile 16, styrene 75, glycidyl methacrylate 4, and Na styrenesulfonate 6 parts were polymd. to give a copolymer (II), which was melt kneaded with 60 parts I and 25 parts ABS resin (JSR ABS 10) to give a master batch. A compn. of the master batch 20, I 12, II 3, the ABS resin 85, and KCl (added in prepn. of I) 0.5 part was injection molded to give a test piece showing Izod impact strength 43 kg-cm/cm, flexural modulus 17,000 kg/cm<sup>2</sup>, surface resistivity  $1 + 10^{10} \Omega$  initially and no change after washing, and cross-cut adhesion of electrostatically applied acrylic urethane coating 100/100 even after immersion in H<sub>2</sub>O.
- IC ICM C08L025-18  
ICS C08L025-04; C08L033-20; C08L057-00; C08L069-00; C08L077-00
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 42
- ST ABS resin electrostatic coatability improvement; polyether **polyester polyamide** blend ABS coatability; styrenesulfonate polymer blend ABS electrostatic coatability; water resistance coating ABS resin
- IT Polycarbonates, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(ABS resin blends; **poly(ether-ester-amides)** and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Antistatic agents  
Electrodeposits  
Vehicles  
Waterproofing agents  
(**poly(ether-ester-amides)** and sulfo-contg. vinyl polymers as internal modifiers for styrene

- resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polymer blends  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(poly(ether-ester-amides)  
and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polyamide-polyester-; poly(ether-ester-amides) and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyesters, preparation  
Polyesters, preparation  
Polyesters, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polyamide-polyoxyalkylene-; poly(ether-ester-amides) and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT Polyamides, preparation  
Polyamides, preparation  
Polyamides, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(polyester-polyoxyalkylene-; poly(ether-ester-amides) and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water resistance of coatings for vehicles)
- IT 175649-47-5P, Bisphenol A-ethylene oxide adduct-ε-caprolactam-terephthalic acid copolymer 205439-13-0P, Acrylonitrile-glycidyl methacrylate-sodium styrenesulfonate-styrene copolymer  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)  
(poly(ether-ester-amides)  
and sulfo-contg. vinyl polymers as internal modifiers for styrene resins with improved electrostatic coatability and water

resistance of coatings for vehicles)  
IT 106677-58-1, JSR ABS 10 175386-85-3, Multilon T 3000  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(poly(ether-ester-amides)  
and sulfo-contg. vinyl polymers as internal modifiers for styrene  
resins with improved electrostatic coatability and water  
resistance of coatings for vehicles)

L75 ANSWER 37 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1998:98477 HCAPLUS  
DOCUMENT NUMBER: 128:154933  
TITLE: Antistatic polymer compositions with  
excellent impact resistance  
INVENTOR(S): Hashimoto, Yoshihiko; Ichioka, Teruhiro  
PATENT ASSIGNEE(S): Kanegafuchi Chemical Industry Co., Ltd., Japan;  
Techno Polymer Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10036628	A2	19980210	JP 1996-209076	199607 19
JP 3618478	B2	20050209	JP 1996-209076	199607 19

PRIORITY APPLN. INFO.:

AB The compns., useful for elec. and electronic parts, etc., comprise  
(A) mixts. of 0-90% copolymers of arom. vinyl compds. 50-90, vinyl  
cyanides 10-40, alkyl (meth)acrylates 0-40, N-substituted maleimides  
0-40, and other vinyl comonomers 0-20% and 10-100% graft copolymers  
of 10-95% rubbers ( $T_g \leq 0^\circ$ ) grafted with 5-90% monomer  
mixts. of  $\alpha\%$  arom. vinyl compds.,  $\beta\%$  vinyl cyanides,  
 $\gamma\%$  alkyl (meth)acrylates, and  $\delta\%$  other vinyl comonomers,  
satisfying  $(\beta + \gamma)/4 = 10-40$ ,  $\delta = 100 - \beta -$   
 $\gamma - \alpha$ ,  $\beta \geq 0$ ,  $\gamma \geq 0$ ,  $\alpha =$   
0-90, and  $\delta = 0-20$ , (B) 1-10 parts (vs. 100 parts A)  
poly(ether-ester-amides)  
derived from carboxy-terminated polyamides ( $M_n$  500-5000)  
and bisphenol-ethylene oxide adducts ( $M_n$  300-3000) and/or  
poly(ethylene oxide) ( $M_n$  300-6000), (C) 0.1-10 parts (same as above)  
adducts of alkylene oxides and sapond. ethylene-satd. carboxylic  
acid vinyl ester copolymers, (D) 0.1-5 parts (same as above)  
alkanesulfonate salts and/or alkylbenzenesulfonate salts, and (E)

0.1-5 parts (same as above) phosphorous acid derivs., metaphosphoric acid derivs., and/or pyrophosphates. Thus, monomers of  $\alpha$ -methylstyrene 73, styrene 2, and acrylonitrile 25% were polymd. in an aq. media in the presence of tert-dodecyl mercaptan and cumene hydroperoxide to give a copolymer (I), sep., 70 parts (solid) polybutadiene rubber ( $T_g$  -90°) was grafted with 20 parts styrene and 10 parts acrylonitrile to give a graft copolymer latex, 30 parts of which was blended with 70 parts I and 0.6 part antioxidants, coagulated, washed, and dried to give a mixt. A compn. of the mixt. 100, a poly(ether-amide) [prepd. from  $\omega$ -caprolactam 30.3, adipic acid 4.9, and bisphenol A-ethylene oxide adduct (Mn 2000) 64.8 parts] 4.5, ethoxylated sapond. ethylene-vinyl acetate copolymer 1.5, Na dodecanesulfonate 1.5, K4P207 1.0, ethylenebisstearamide 1, and antioxidants 0.6 part was extruded to give a test piece showing heat distortion temp. 105° under 18.6-kg load, Izod impact strength 10 kg-cm/cm, and static charge half life 0.5 s initially and no change after washed.

- IC ICM C08L055-02  
ICS C08K005-42; C08K005-51; C08L025-12; C08L055-02; C08L077-00;  
C08L071-02; C08L077-12
- CC 37-6 (Plastics Manufacture and Processing)
- ST polyether polyester polyamide antistatic  
ABS resin; pyrophosphate blend antistatic ABS impact  
resistance; sodium dodecanesulfonate antistatic ABS AS  
blend; ethoxylated vinyl alc polymer antistatic ABS
- IT Sulfonates  
RL: MOA (Modifier or additive use); USES (Uses)  
(alkanesulfonates, C8-18, potassium salts; antistatic  
ABS resin compns. with good impact resistance)
- IT Antistatic agents  
Impact-resistant materials  
(antistatic ABS resin compns. with good impact  
resistance)
- IT Polymer blends  
RL: PRP (Properties)  
(antistatic ABS resin compns. with good impact  
resistance)
- IT Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(polyamide-polyester-; antistatic  
ABS resin compns. with good impact resistance)
- IT Polyesters, preparation  
Polyesters, preparation  
Polyesters, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(polyamide-polyoxyalkylene-; antistatic ABS  
resin compns. with good impact resistance)

- IT Polyamides, preparation  
Polyamides, preparation  
Polyamides, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(polyester-polyoxyalkylene-; antistatic ABS  
resin compns. with good impact resistance)
- IT Polyoxyalkylenes, preparation  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(polymers with sapond. ethylene-vinyl acetate copolymer;  
antistatic ABS resin compns. with good impact resistance)
- IT 24937-78-8DP, Ethylene-vinyl acetate copolymer, sapond., ethoxylated  
25322-68-3DP, Polyethylene glycol, polymers with sapond.  
ethylene-vinyl acetate copolymer 115180-63-7P, Adipic  
acid- $\omega$ -caprolactam- polyethylene glycol block  
copolymer 151819-95-3P  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PREP (Preparation); USES (Uses)  
(antistatic ABS resin compns. with good impact  
resistance)
- IT 9003-54-7P, Acrylonitrile-styrene copolymer 9010-96-2P,  
Acrylonitrile- $\alpha$ -methylstyrene-styrene copolymer 31621-07-5P,  
Acrylonitrile-phenylmaleimide-styrene copolymer 106677-58-1P,  
Acrylonitrile-butadiene-styrene graft copolymer 107080-92-2P,  
Butadiene-methyl methacrylate-styrene graft copolymer  
111966-36-0P, Butadiene-methacrylic acid-methyl methacrylate-styrene  
graft copolymer  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); PREP (Preparation); USES (Uses)  
(antistatic ABS resin compns. with good impact  
resistance)
- IT 98-11-3D, Benzenesulfonic acid, C8-18 alkyl  
derivs., salts, uses 2386-53-0, Sodium dodecanesulfonate  
7320-34-5, Potassium pyrophosphate 7722-88-5 7790-53-6,  
Potassium polymetaphosphate 13598-36-2, Phosphorous acid, uses  
50813-16-6, Sodium polymetaphosphate  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic ABS resin compns. with good impact  
resistance)

L75 ANSWER 38 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1997:756853 HCAPLUS  
DOCUMENT NUMBER: 128:62278  
TITLE: Thermoplastic resin compositions recyclable  
without losing antistatic properties  
INVENTOR(S): Nakayama, Yutaka  
PATENT ASSIGNEE(S): Daiichi Kogyo Seiyaku Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09302241	A2	19971125	JP 1996-121475	19960516
PRIORITY APPLN. INFO.:				19960516

OTHER SOURCE(S): MARPAT 128:62278

AB The title compns. comprise 100 parts thermoplastic resins, 1-30 parts quaternary ammonium group-contg. copolymers, and 0.01-5 parts H<sub>2</sub>NRCO<sub>2</sub>H or H<sub>2</sub>NRSO<sub>3</sub>H (R = C1-12 alkylene, phenylene). A 93:3:4 ethylene-Et acrylate-acrylic acid copolymer was amidated with (dimethylamino)propylamine then quaternized with MeI. A title compn. comprised 100 parts **polypropylene**, 10 parts the above product, and 0.3 part taurine.

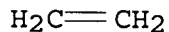
IT 9002-88-4, **Polyethylene** 9003-07-0;  
**Polypropylene** 24968-12-5, PBT 1401X06  
26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
32131-17-2, Nylon 66, properties  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(thermoplastic resin compns. recyclable without losing antistatic properties)

RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

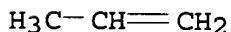


RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

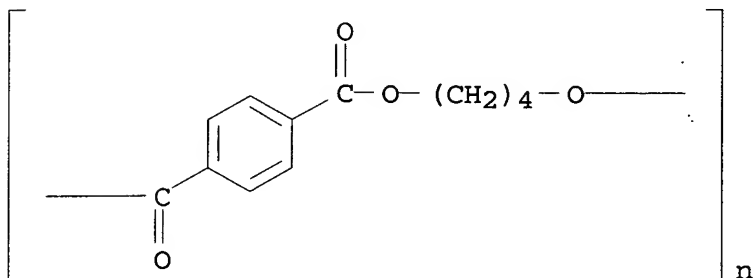
CM 1

CRN 115-07-1

CMF C3 H6



RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

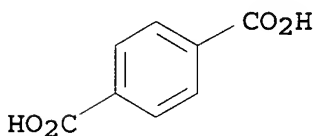
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

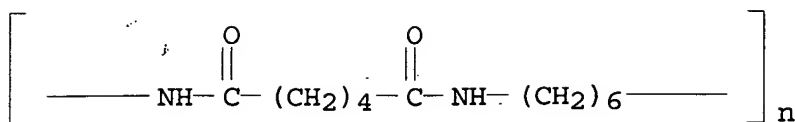
HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



RN 32131-17-2 HCAPLUS  
 CN Poly[imino(1,6-dioxo-1,6-hexanediyl)imino-1,6-hexanediyl] (9CI) (CA  
 INDEX NAME)



- IC ICM C08L101-00  
ICS C08K005-17; C08K005-42; C08L023-00; C08L023-04; C08L025-00;  
C08L027-00; C08L033-10; C08L055-02; C08L067-00; C08L077-00;  
C08L101-00; C08L101-02
- CC 37-6 (Plastics Manufacture and Processing)
- ST thermoplastic resin **antistatic** recyclable;  
**polyolefin** quaternary ammonium polymer **antistatic**  
recyclable; amino acid **antistatic** recyclable thermoplastic  
resin; **aminosulfonic acid antistatic**  
recyclable thermoplastic resin
- IT Quaternary ammonium compounds, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polymeric; thermoplastic resin compns. recyclable without losing  
**antistatic** properties)
- IT **Antistatic agents**  
(thermoplastic resin compns. recyclable without losing  
**antistatic** properties)
- IT Amino acids, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(thermoplastic resin compns. recyclable without losing  
**antistatic** properties)
- IT **Polyamides**, properties  
Polycarbonates, properties  
**Polyolefins**  
Polyoxyphenylenes  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(thermoplastic resin compns. recyclable without losing  
**antistatic** properties)
- IT 64-67-5DP, Diethyl sulfate, acrylic acid copolymer amides  
quaternized by 74-88-4DP, Methyl iodide, acrylic acid copolymer  
amides quaternized by 109-55-7DP, acrylic acid copolymer amides  
with, quaternized 9010-77-9DP, Acrylic acid-ethylene copolymer,  
amides with diamines, quaternized 9011-13-6DP, Maleic  
anhydride-styrene copolymer, imides with diamines, quaternized  
25134-48-9DP, Acrylic acid-ethyl acrylate-ethylene copolymer, amides  
with diamines, quaternized 31069-95-1DP, Ethyl methacrylate-maleic  
anhydride-styrene copolymer, imides with diamines, quaternized  
51024-16-9DP, Styrene-vinylbenzyl chloride copolymer, acrylic acid  
copolymer amides quaternized by octyldimethylamine 188549-88-4DP,  
acrylic acid copolymer amides quaternized by octyldimethylamine  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
(Properties); TEM (Technical or engineered material use); PREP  
(Preparation); USES (Uses)  
(thermoplastic resin compns. recyclable without losing



**antistatic properties)**

IT 56-40-6, Glycine, uses 56-41-7, Alanine, uses 56-86-0, Glutamic acid, uses 81-16-3, Tobias acid 107-35-7, Taurine 118-92-3 121-47-1, Metanilic acid 121-57-3, Sulfanilic acid 693-57-2, 12-Aminododecanoic acid

RL: MOA (Modifier or additive use); USES (Uses)  
(thermoplastic resin compns. recyclable without losing  
**antistatic properties)**

IT 9002-86-2, TK 1000 9002-88-4, Polyethylene  
9003-07-0, Polypropylene 9003-56-9, ABS polymer  
9011-14-7, PMMA 24936-68-3, Toughlon A-2200, properties  
24937-78-8, EVA 24968-12-5, PBT 1401X06 25037-45-0,  
Bisphenol A-carbonic acid copolymer 26062-94-2,  
1,4-Butanediol-terephthalic acid copolymer 32131-17-2,  
Nylon 66, properties 39316-43-3, Noryl 731 56572-92-0, Estyrene  
H-65

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical  
or engineered material use); USES (Uses)  
(thermoplastic resin compns. recyclable without losing  
**antistatic properties)**

L75 ANSWER 39 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:731752 HCAPLUS

DOCUMENT NUMBER: 127:347124

TITLE: **Antistatic polycarbonate compositions  
and their products**

INVENTOR(S): Kikuchi, Seiji

PATENT ASSIGNEE(S): Teijin Chemicals Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09291207	A2	19971111	JP 1996-102891	199604 24
JP 3645354	B2	20050511		
PRIORITY APPLN. INFO.:			JP 1996-102891	199604 24

AB The title compns., with good heat and impact resistance, comprise  
(a) polycarbonates (e.g., Panlite L-1225) 40-96, (b) arom.  
**polyesters** (e.g., TR-8580) 2-50, (c) elastic copolymer of  
butadiene, (meth)acrylates, and arom. vinyl compds. or composite  
rubber of silicone rubber and acrylic rubber (e.g., Paraloid  
EXL-2602, Metablen S-2001) 1-15, and (d) polyether-ester-amides

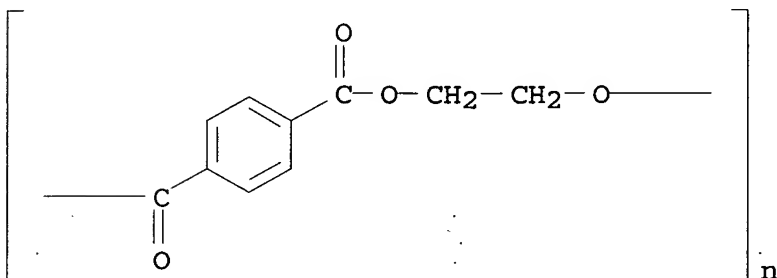
derived from polyamides and bisphenol-ethylene oxide adduct (e.g., copolymer of bisphenol A-ethylene oxide adduct and  $\epsilon$ -caprolactam) 1-20%.

IT 25038-59-9, TR-8580, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic polycarbonate compns. and their products)

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08L069-00

ICS C08J005-00; C08L067-02; C08L069-00; C08L051-00; C08L077-12

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 76

ST antistatic polycarbonate polyester acrylic

rubber blend; PET polycarbonate blend antistatic molding;

polyetheresteramide polycarbonate blend antistatic

; elastic copolymer polycarbonate blend antistatic

IT Sulfonic acids, uses

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)

(C12-17-alkane, sodium salts, antistatic agents;

antistatic polycarbonate compns. and their products)

IT Antistatic agents

Chemically resistant materials

Heat-resistant materials

Impact-resistant materials

(antistatic polycarbonate compns. and their products)

IT Molded plastics, properties

Polycarbonates, properties

Polyesters, properties

Polyesters, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(antistatic polycarbonate compns. and their products)

IT Acrylic rubber

Synthetic rubber, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)

(butadiene-Me methacrylate-styrene, graft; antistatic

polycarbonate compns. and their products)

IT Molding of plastics and rubbers

(injection; antistatic polycarbonate compns. and their products)

IT Polyethers, properties  
Polyethers, properties  
Polyethers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyester-; antistatic polycarbonate compns. and their products)

IT Polyesters, properties  
Polyesters, properties  
Polyesters, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-polyether-; antistatic polycarbonate compns. and their products)

IT Polyamides, properties  
Polyamides, properties  
Polyamides, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyester-polyether-; antistatic polycarbonate compns. and their products)

IT 3806-34-6, Distearyl pentaerythritol diphosphite  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(antistatic polycarbonate compns. and their products)

IT 105-60-2D,  $\epsilon$ -Caprolactam, polymer with bisphenol A-ethylene oxide adduct 24936-68-3, Panlite L-1225, properties 25038-59-9, TR-8580, properties 32492-61-8D, Bisphenol A-ethylene oxide adduct, polymer with  $\epsilon$ -caprolactam 149718-92-3, Metablen S-2001  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic polycarbonate compns. and their products)

L75 ANSWER 40 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1997:731751 HCAPLUS  
DOCUMENT NUMBER: 127:347123  
TITLE: Antistatic aromatic polycarbonate compositions and their products  
INVENTOR(S): Kikuchi, Seiji  
PATENT ASSIGNEE(S): Teijin Chemicals Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09291206	A2	19971111	JP 1996-102890	19960424

PRIORITY APPLN. INFO.:

JP 1996-102890

199604

24

AB The title compns., with good abrasion and impact resistance, comprise (a) polycarbonates (e.g., Panlite L-1225) 30-86, (b) thermoplastic graft copolymers (e.g., Santac UT-61) 10-50, (c) PTFE (e.g., Lublon L-5) 3-20, (d) polyether-ester-amides derived from polyamides and bisphenol-ethylene oxide adduct (e.g., copolymer of bisphenol A-ethylene oxide adduct and ε-caprolactam) 1-20%, and optionally (e) flake inorg. fillers (e.g., talc) 5-40, (f) composite rubber graft copolymers (e.g., Paraloid EXL-2602, Metablen S-2001) 1-15, and/or (g) fireproofing agents (e.g., Sb2O3) 5-30 phr.

IT 9002-88-4, Hiwax 310MP  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic polycarbonate compns. and their products)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

 $H_2C=CH_2$ 

IC ICM C08L069-00  
ICS C08J005-00; C08L055-02; C08L069-00; C08L027-18; C08L077-12

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 76

ST antistatic polycarbonate ABS PTFE blend;  
polyetheresteramide polycarbonate ABS blend  
antistatic; talc polycarbonate ABS blend antistatic  
; fireproofing agent antimony trioxide polycarbonate

IT Sulfonic acids, uses  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(C12-17-alkane, sodium salts, antistatic agents;  
antistatic polycarbonate compns. and their products)

IT Abrasion-resistant materials  
Antistatic agents  
Impact-resistant materials  
(antistatic polycarbonate compns. and their products)

IT Fluoropolymers, properties  
Molded plastics, properties  
Polycarbonates, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic polycarbonate compns. and their products)

IT Acrylic rubber

- Synthetic rubber, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(butadiene-Me methacrylate-styrene, graft; antistatic polycarbonate compns. and their products)
- IT Molding of plastics and rubbers  
(injection; antistatic polycarbonate compns. and their products)
- IT Polyethers, uses  
Polyethers, uses  
Polyethers, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyamide-polyester-; antistatic polycarbonate compns. and their products)
- IT Polyesters, uses  
Polyesters, uses  
Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyamide-polyether-; antistatic polycarbonate compns. and their products)
- IT Polyamides, uses  
Polyamides, uses  
Polyamides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyester-polyether-; antistatic polycarbonate compns. and their products)
- IT 105-60-2D,  $\epsilon$ -Caprolactam, polymer with bisphenol A-ethylene oxide adduct 1309-64-4, Antimony trioxide, uses 9002-88-4, Hiwax 310MP 14807-96-6, Talc, uses 28774-93-8, FG-7000 32492-61-8D, Bisphenol A-ethylene oxide adduct, polymer with  $\epsilon$ -caprolactam 149718-92-3, Metablen S-2001  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic polycarbonate compns. and their products)
- IT 512-56-1, Trimethyl phosphate  
RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
(antistatic polycarbonate compns. and their products)
- IT 9002-84-0, Lublon L-5 24936-68-3, Panlite L-1225, properties 106677-58-1, Santac UT-61  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(antistatic polycarbonate compns. and their products)

L75 ANSWER 41 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:692203 HCAPLUS

DOCUMENT NUMBER: 127:347145

TITLE: Unsaturated polyoxyalkylenes with sulfonic acid groups for antistatic agents and thermoplastic resin compositions using the same

INVENTOR(S): Ogawa, Atsuhisa; Kuribayashi, Ryotaro; Furumiya, Yukiatsu

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

DOCUMENT TYPE: CODEN: JKXXAF  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 1 Japanese  
 PATENT INFORMATION:

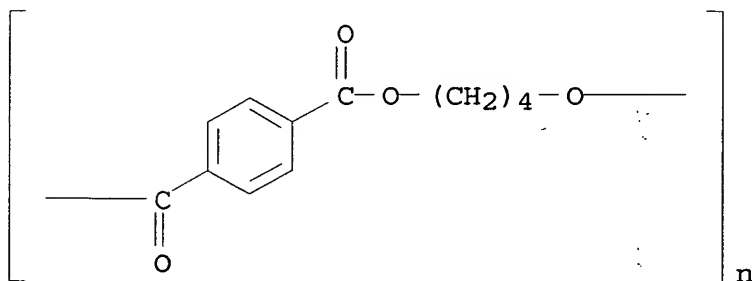
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09272721	A2	19971021	JP 1996-106241	19960403

PRIORITY APPLN. INFO.: JP 1996-106241  
 19960403

AB The copolymer (salts) comprise (A) 5-30% compd. units having SO<sub>3</sub>H and ethylenic unsatd. bonds, (B) 10-70% units of CH<sub>2</sub>CR<sub>1</sub>CO<sub>2</sub>R<sub>2</sub>(OR<sub>3</sub>)nOR<sub>4</sub> (R<sub>1</sub> = H, Me; R<sub>2</sub> = divalent hydrocarbyls which may contain OH; R<sub>3</sub> = C<sub>2</sub>-4 divalent satd. aliph. hydrocarbyls; R<sub>4</sub> = C<sub>4</sub>-30 monovalent hydrocarbyls; n = 3-200), and (C) ethylenic unsatd. compd. units other than A or B, wherein A + B = 20-90%. The comps. comprise 100 parts thermoplastic resins and 1-80 parts the copolymer (salts) as **antistatic** agents. Thus, Me methacrylate 20, Spinomar NaSS 20, and **polyethylene** glycol lauryl ether methacrylate 25 g were mixed in 1,4-dioxane-H<sub>2</sub>O mixt. and polymd. in the presence of AIBN to give a copolymer, 10 parts of which was kneaded at 230° with 0.3 part PEP 36 and 90 parts Parapet EH at at 230° and molded at 240° to give test pieces showing flexural modulus 23,000 kg/cm<sup>2</sup>, no discoloration after 60 min at 270°, and good elec. cond.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2  
 , Poly(butylene terephthalate)  
 RL: POF (Polymer in formulation); USES (Uses)  
 (sulfo-contg. unsatd. polyoxyalkylenes for **antistatic**  
 agents for thermoplastic resin comps.)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

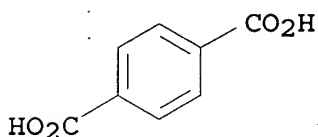
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO—(CH<sub>2</sub>)<sub>4</sub>—OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08F290-06  
 ICS C08L033-02; C08L033-06; C08L101-00; C09K003-16; C08L057-04  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 35  
 ST unsatd polyoxyalkylene sulfonic acid prepn;  
 antistatic agent polyoxyalkylene thermoplastic resin compn;  
 acrylic polymer compn polyoxyalkylene antistatic agent;  
 sulfo polyoxyalkylene acrylate graft antistatic agent  
 IT Polyoxyalkylenes, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
 PRP (Properties); PREP (Preparation); USES (Uses)  
 (acrylic, graft, sulfo-contg.; sulfo-contg. unsatd.  
 polyoxyalkylenes for antistatic agents for  
 thermoplastic resin compns.)  
 IT Antistatic agents  
 (sulfo-contg. unsatd. polyoxyalkylenes for antistatic  
 agents for thermoplastic resin compns.)  
 IT Polycarbonates, uses  
 Polyesters, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (sulfo-contg. unsatd. polyoxyalkylenes for antistatic  
 agents for thermoplastic resin compns.)  
 IT 198403-12-2P 198403-13-3P 198403-14-4P 198403-15-5P  
 198403-16-6P 198403-17-7P 198403-18-8P 198403-19-9P  
 198403-20-2P 198403-21-3P 198403-22-4P 198403-23-5P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use);

PRP (Properties); PREP (Preparation); USES (Uses)  
(sulfo-contg. unsatd. polyoxyalkylenes for antistatic  
agents for thermoplastic resin compns.)

IT 9003-56-9, Cycolac T 9011-14-7, Parapet EH 24936-68-3, Toughlon  
A 2200, uses 24968-12-5, Poly(butylene terephthalate)  
26062-94-2, Poly(butylene terephthalate)  
RL: POF (Polymer in formulation); USES (Uses)  
(sulfo-contg. unsatd. polyoxyalkylenes for antistatic  
agents for thermoplastic resin compns.)

L75 ANSWER 42 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:618325 HCAPLUS

DOCUMENT NUMBER: 127:263670

TITLE: Transparent thermoplastic resin compositions  
containing sulfoimide antistatic  
agents

INVENTOR(S): Mizutani, Toshihiro; Ishikawa, Masahide;  
Fujitani, Tsuratake

PATENT ASSIGNEE(S): New Japan Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

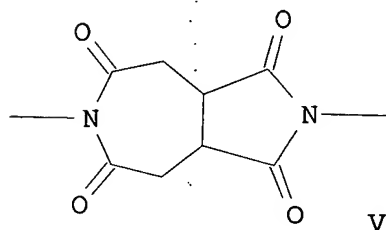
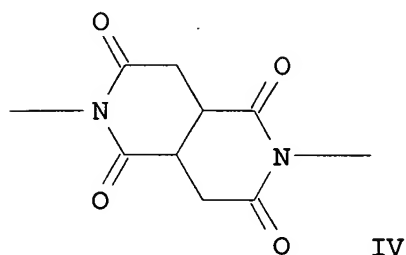
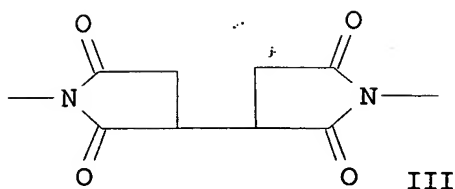
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 09235409	A2	19970909	JP 1996-69230	199602 28
PRIORITY APPLN. INFO.: JP 1996-69230				199602 28

GI





AB The compns. contain 100 parts of thermoplastic resins and 0.1-30 parts of sulfoimides RA(XY)<sub>a</sub>XBSO<sub>3</sub>M (I) or MO<sub>3</sub>SB(XY)<sub>c</sub>XBSO<sub>3</sub>M (II) [R = hydrocarbonyl; A = direct bond, phenylene, O(CH<sub>2</sub>)<sub>3</sub>; B = direct bond, alkylene, arylene; M = H, alkali metal, alk. earth metal; X = III, IV, and V; Y = alkylene, phenylene, ether; a = 0-10]. Thus, 1,2,3,4-butanetetracarboxylic acid 0.3, m-xylenediamine 0.2, and 1-aminoethane-2-sulfonic acid 0.2 mol were allowed to react in water in the presence of NaOH at 260° to give a sulfoimide II [Y = CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>, B = CH<sub>2</sub>CH<sub>2</sub>, M = Na, c = 1.8 (av.)], 3 parts of which was dry blended with 100 parts polyethylene terephthalate, sheeted at 270°, and left for 24 h at 25° and 60% RH to give test pieces showing light transparency 84%, surface sp. resistivity 8 + 10<sup>10</sup> Ω initially and 8 + 10<sup>11</sup> Ω after washing, and half life ≤ 3 s.

IT 9020-32-0, Ethylene glycol-naphthalenedicarboxylic acid copolymer 9020-73-9, Poly(ethylene naphthalenedicarboxylate) 24968-12-5, Poly(butylene terephthalate) 25038-59-9, Polyethylene terephthalate, properties 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (transparent thermoplastic resin compns. contg. sulfoimide)

antistatic agents)

RN 9020-32-0 HCAPLUS

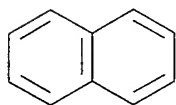
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS

2 [ D1-CO<sub>2</sub>H ]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

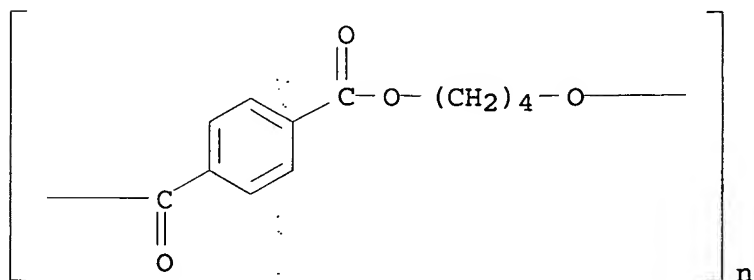
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI) (CA INDEX NAME)

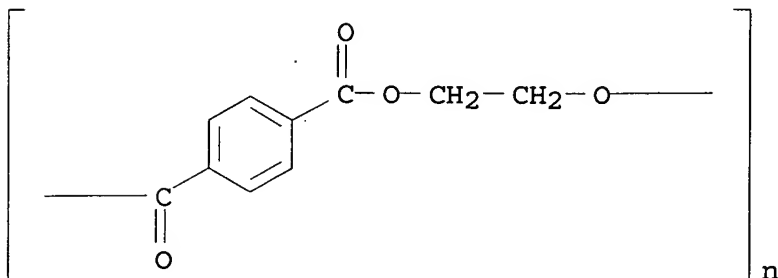
\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

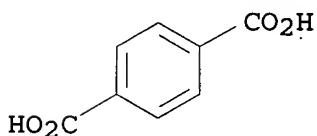
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08K005-42  
 ICS C08L101-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST sulfoimide **antistatic** agent thermoplastic resin compn;  
 butanetetracarboxylic acid sulfoimide deriv **antistatic**  
 agent; **aminoethanesulfonic acid** terminated  
 polyimide **antistatic** agent; **aminosulfonic**  
 acid terminated polyimide **antistatic** agent  
 IT Polyamides, properties

**Polyesters, properties**  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(arom.; transparent thermoplastic resin compns. contg. sulfoimide  
antistatic agents)

IT Polyimides, properties  
Polyimides, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyamide-; transparent thermoplastic resin compns.  
contg. sulfoimide antistatic agents)

IT Polyimides, properties  
Polyimides, properties  
Polyketones  
Polyketones  
Polysulfones, properties  
Polysulfones, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyether-; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Polyamides, properties  
Polyamides, properties  
Polyethers, properties  
Polyethers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyimide-; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Polyethers, properties  
Polyethers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyketone-; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Impact-resistant materials  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polystyrenes; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Polyethers, properties  
Polyethers, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polysulfone-; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Polyimides, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(thermoplastic; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT Antistatic agents  
Transparent materials  
(transparent thermoplastic resin compns. contg. sulfoimide  
antistatic agents)

IT Polycarbonates, properties  
Polyesters, properties  
Polymer blends  
Polyoxymethylenes, properties  
Polyoxyphenylenes

Polysulfones, properties

Polythioarylenes

Polythiophenylenes

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(transparent thermoplastic resin compns. contg. sulfoimide  
antistatic agents)

IT 100-42-5D, polymers

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(impact-resistant; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT 9003-56-9, ABS resin

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(modified with phenylmaleimide,  $\alpha$ -methylstyrene, and/or  
maleic anhydride; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT 25734-19-4DP, 2-sodiosulfoethyl-terminated 26521-07-3DP,  
2-sodiosulfoethyl-terminated 26659-60-9DP, 1,2,3,4-  
Butanetetracarboxylic acid-4,4'-diaminodiphenyl ether copolymer,  
reaction products with 1-aminoethane-2-sulfonic  
acid, sodium salts 38640-86-7DP, reaction  
products with 1-aminoethane-2-sulfonic acid,  
sodium salts 107999-63-3DP, 2-sodiosulfoethyl-terminated  
130367-76-9DP, reaction products with 1-aminoethane-2-  
sulfonic acid, sodium salts  
180996-32-1DP, reaction products with 1-aminoethane-2-  
sulfonic acid, sodium salts  
183123-00-4DP, 1,3-Bis(aminomethyl)cyclohexane-1,2,3,4-  
butanetetracarboxylic acid copolymer, reaction products with  
sulfanilic acid, sodium salts 195974-47-1DP, 2-sodiosulfoethyl-  
terminated 195974-48-2DP, reaction products with sulfanilic acid,  
sodium salt 195974-49-3DP, 2-sodiosulfoethyl-terminated  
195974-50-6DP, 2-sodiosulfoethyl-terminated 195974-51-7DP,  
reaction products with p-dodecylaniline and sulfanilic acid, sodium  
salts 195974-52-8DP, reaction products with p-dodecylaniline and  
sulfanilic acid, sodium salts  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use);  
PRP (Properties); PREP (Preparation); USES (Uses)  
(oligomeric; transparent thermoplastic resin compns. contg.  
sulfoimide antistatic agents)

IT 9002-86-2D, PVC, chlorinated 9016-80-2, Polymethylpentene  
9020-32-0, Ethylene glycol-naphthalenedicarboxylic acid  
copolymer 9020-73-9, Poly(ethylene  
naphthalenedicarboxylate) 24936-68-3, Bisphenol A polycarbonate,  
sru, properties 24936-69-4, Poly(1,4-cyclohexanedimethylene  
terephthalate) 24938-67-8, Poly(2,6-dimethyl-1,4-phenylene ether)  
24968-12-5, Poly(butylene terephthalate) 25037-45-0  
25037-99-4, 1,4-Cyclohexanedimethanol-terephthalic acid copolymer  
25038-59-9, Polyethylene terephthalate,  
properties 25038-76-0, Polynorbornene 25134-01-4, 2,6-Xylenol  
homopolymer 26062-94-2, 1,4-Butanediol-terephthalic acid  
copolymer 26590-50-1, Bisphenol A-isophthalic acid-terephthalic  
acid copolymer 28325-75-9, Syndiotactic polystyrene 39281-59-9,

Bisphenol A-isophthalic acid-terephthalic acid copolymer, sru  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(transparent thermoplastic resin compns. contg. sulfoimide  
antistatic agents)

L75 ANSWER 43 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1997:361018 HCAPLUS

DOCUMENT NUMBER: 127:18468

TITLE: **Polyester** resin compositions with good  
heat resistance, mechanical and lasting  
**antistatic** properties

INVENTOR(S): Yoshida, Seiji

PATENT ASSIGNEE(S): Mitsubishi Engineering Plastic K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09087496	A2	19970331	JP 1995-247675	199509 26

PRIORITY APPLN. INFO.: JP 1995-247675  
199509  
26

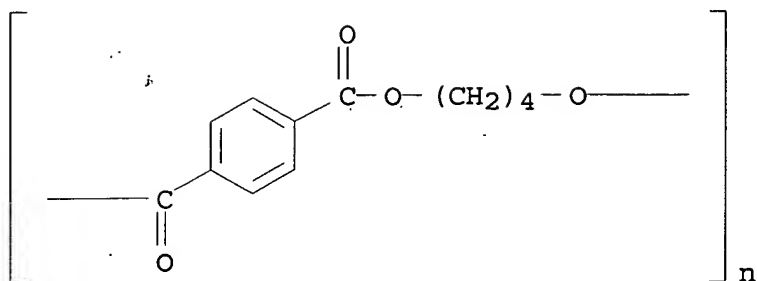
AB The compns. comprise (A) **polyesters** 98-50, (B) poly(ester  
ethers) 2-50, and (C) org. **sulfonic acid**-type  
**antistatic** agents 0-10%, where the poly(ester ethers)  
consist of a hard segment derived from glycols and alkali metal  
salts of sulfo-contg. dicarboxylic acids and a soft segment derived  
from alkylene glycols and/or bisphenol-alkylene oxide adducts.  
Prepg. a di-Me terephthalate-dimethyl isophthalate-dimethyl  
3-sodiosulfoisophthalate-ethylene glycol-**polyethylene**  
glycol block copolymer, melt kneading the block copolymer 10, Atrait  
AS 1030, and PBT 88 parts, and injection molding gave test pieces  
with surface intrinsic resistance  $8.5 \times 10^{10} \Omega$ , flexural  
modulus 24,500, and heat distortion temp. 62°.

IT 24968-12-5, PBT 26062-94-2, Butanediol-  
terephthalic acid copolymer

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(**polyester** resin compns. with good heat resistance,  
mech. and lasting **antistatic** properties)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

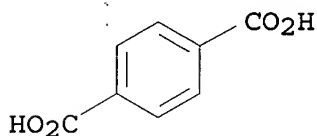
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08L067-02  
 ICS C08G063-688; C08K005-42; C08L067-02; C08L067-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **polyester** compn heat resistance **antistatic**; PBT  
 compn **antistatic** heat resistant; polyether  
**polyester** sulfonated **antistatic** compn  
 IT Plastics, properties  
 Polyesters, properties  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (polyester resin compns. with good heat resistance,  
 mech. and lasting **antistatic** properties)  
 IT Polyethers, uses  
 Polyethers, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyester-, sulfonated salt; **polyester** resin

compns. with good heat resistance, mech. and lasting antistatic properties)

IT Polyesters, uses  
Polyesters, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyether-, sulfonated salt; polyester resin compns. with good heat resistance, mech. and lasting antistatic properties)

IT Antistatic agents  
(sulfo poly(ester ethers); polyester resin compns. with good heat resistance, mech. and lasting antistatic properties)

IT 136044-72-9P 189570-25-0P  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
(polyester resin compns. with good heat resistance, mech. and lasting antistatic properties)

IT 171758-24-0, Atrait AS1030  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyester resin compns. with good heat resistance, mech. and lasting antistatic properties)

IT 24968-12-5, PBT 26062-94-2, Butanediol-terephthalic acid copolymer  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyester resin compns. with good heat resistance, mech. and lasting antistatic properties)

L75 ANSWER 44 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1997:253790 HCAPLUS  
DOCUMENT NUMBER: 126:239704  
TITLE: Electrically conductive composition and elements containing solubilized polyaniline complex  
INVENTOR(S): Gardner, Sylvia Alice; Shaw-Klein, Lori Jeannne; Brady, Brian Kenneth  
PATENT ASSIGNEE(S): Eastman Kodak Company, USA  
SOURCE: Eur. Pat. Appl., 18 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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EP 758671	A2	19970219	EP 1996-202120	199607 25
EP 758671	A3	19970226		
EP 758671	B1	20000308		
R: DE, FR, GB				
US 5716550	A	19980210	US 1996-583266	



AB Elec. conductive elements, such as imaging elements, can be prepd. by applying elec. conductive coating compns. of a polyaniline-protonic counterion complex in a first solvent that has certain Hansen soly. parameters (polar soly. parameter,  $\delta_p$ , 12-18 MPa<sup>1/2</sup>, and a hydrogen bonding soly. parameter,  $\delta_h$ , 5-14 MPa<sup>1/2</sup>), and a film-forming binder in a second solvent. onto a suitable support. The total solids in the coating compn. is  $\leq 10\%$ , and the binder/complex ratio  $\geq 1:1$ .  
Antistatic layers of photog. elements can be prepeared in this manner. Thus, 10-camphorsulfonic acid stabilized polyaniline (in DMSO)/Elvacite 2010 binder (in dichloromethane) (1% solids) coating was applied to a PET support layer to give a conductive coating having resistivity  $> 13 \Omega/\text{sq}$ .

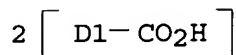
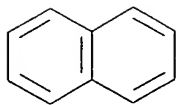
IT 9020-32-0, Polyethylene naphthalate  
9020-73-9 25038-59-9, uses  
RL: NUU (Other use, unclassified); USES (Uses)  
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

RN 9020-32-0 HCAPLUS

CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

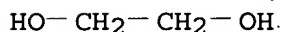
CRN 28604-87-7  
CMF C12 H8 O4  
CCI IDS



CM 2

CRN 107-21-1

CMF C2 H6 O2



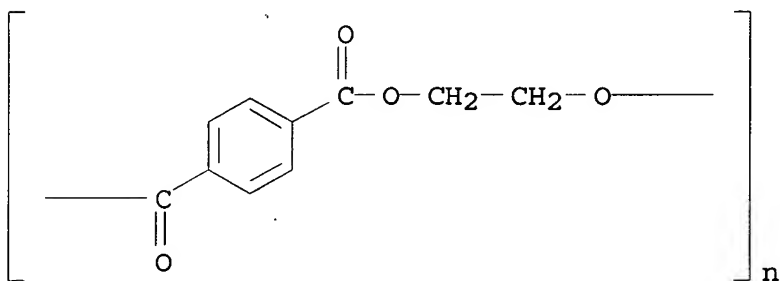
RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



IC ICM C09D005-24

ICA C09D179-02

CC 42-10 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 74, 77

ST elec conductor element doped polyaniline coating;  
camphorsulfonic acid dopant polyaniline; magnetic  
element conductive polymer; photog element conductive polymer;  
dimethylsulfoxide solvent conductive polymer

IT Polyanilines

RL: PRP (Properties); TEM (Technical or engineered material use);

## USES (Uses)

(camphorsulfonic acid doped; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

## IT Polyesters, uses

RL: NUU (Other use, unclassified); USES (Uses)  
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

## IT 25233-30-1, Polyaniline

RL: PRP (Properties); TEM (Technical or engineered material use);  
USES (Uses)

(camphorsulfonic acid doped; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

## IT 75-75-2, Methanesulfonic acid 98-42-0

98-66-8, p-Chlorobenzenesulfonic acid

104-15-4, p-Toluenesulfonic acid, uses

121-03-9, 4-Nitrotoluene-2-sulfonic acid

121-65-3, 4-Dodecylbenzenesulfonic acid

594-45-6, Ethanesulfonic acid 636-73-7, 3-

Pyridinesulfonic acid 1333-39-7,

Hydroxybenzenesulfonic acid 1493-13-6

2373-23-1, Dioctylsulfosuccinate 3944-72-7, 1-

Octanesulfonic acid 4065-45-6,

2-Hydroxy-4-methoxybenzophenone-5-sulfonic acid

4432-31-9, 4-Morpholineethanesulfonic acid

13595-73-8, Hexanesulfonic acid 15909-83-8, 3-

Hydroxypropanesulfonic acid 25322-17-2,

Dinonylnaphthalenesulfonic acid 28210-41-5, p-

Polystyrenesulfonic acid 57352-34-8,

Ethylbenzenesulfonic acid 87116-96-9,

Trichlorobenzenesulfonic acid

RL: TEM (Technical or engineered material use); USES (Uses)  
(elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

## IT 9004-35-7, Cellulose acetate 9020-32-0,

Polyethylene naphthalate 9020-73-9

25038-59-9, uses

RL: NUU (Other use, unclassified); USES (Uses)  
(supports; elec. conductive compn. and elements contg. solubilized polyaniline complex on polymeric supports)

L75 ANSWER 45 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1994:681881 HCAPLUS

DOCUMENT NUMBER: 121:281881

TITLE: Durable antistatic resin compositions

INVENTOR(S): Watanabe, Ichiji; Nakada, Tatsuya

PATENT ASSIGNEE(S): Daicel Chem, Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06065508	A2	19940308	JP 1992-219112	19920818
PRIORITY APPLN. INFO.:			JP 1992-219112	19920818

AB The title compns. contain thermoplastic resins 70-99, polyether ester elastomers prepd. from poly(alkylene oxide) glycols having no.-av. mol. wt. 200-20,000, C2-8 glycols, and C4-20 polybasic carboxylic acids and/or esters 1-30, and **sulfonic acid** metal salts 0-5 parts. Thus, a test piece contained 90 parts Cevian V 300 and 10 part elastomer prepd. from ethylene glycol-initiated  $\epsilon$ -caprolactone polymer 100, di-Me terephthalate 100, and 1,4-butanediol 60 parts.

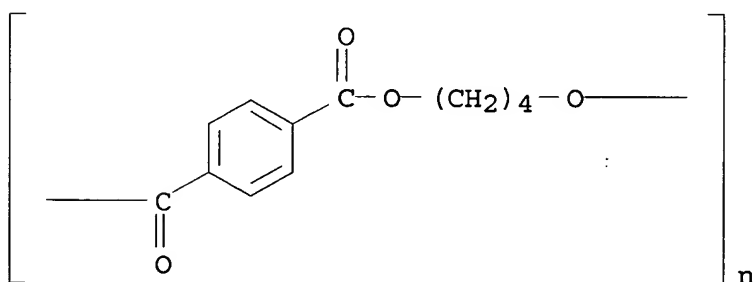
IT 24968-12-5, PBT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)

(antistatic blends contg. thermoplastics and polyester ether elastomers and **sulfonic acid salts**)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

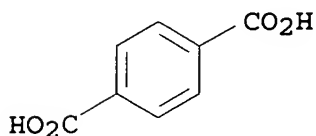
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L101-00  
ICS C08G063-668; C08G064-00; C08L055-02; C08L067-02; C08L071-02;  
C09K003-16

CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 39

ST ABS polymer **antistatic** agent; **polyester** ether  
elastomer

IT Rubber, synthetic  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(butanediol-caprolactone-dimethyl terephthalate-ethylene glycol;  
**antistatic** blends contg. thermoplastics and  
**polyester** ether elastomers and **sulfonic**  
**acid salts**)

IT Rubber, synthetic  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(butanediol-caprolactone-dimethyl terephthalate-pyromellitic  
dianhydride; **antistatic** blends contg. thermoplastics  
and **polyester** ether elastomers and **sulfonic**  
**acid salts**)

IT Rubber, synthetic  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(caprolactone-cyclohexanedimethanol-dimethylpropiolactone-  
dimethyl terephthalate-trimellitic acid; **antistatic**  
blends contg. thermoplastics and **polyester** ether  
elastomers and **sulfonic acid salts**)

IT **Antistatic** agents  
RL: MOA (Modifier or additive use); USES (Uses)  
(sodium alkanesulfonates; **antistatic** blends contg.  
thermoplastics and **polyester** ether elastomers and  
**sulfonic acid salts**)

IT **Sulfonic acids, uses**

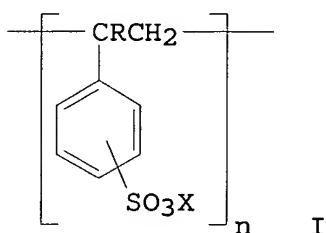
- RL: MOA (Modifier or additive use); USES (Uses)  
(alkane, sodium salts, antistatic agent;  
antistatic blends contg. thermoplastics and  
polyester ether elastomers and sulfonic  
acid salts)
- IT Sulfonates  
RL: MOA (Modifier or additive use); USES (Uses)  
(alkylarene, antistatic blends contg. thermoplastics  
and polyester ether elastomers and sulfonic  
acid salts)
- IT Sulfonates  
RL: MOA (Modifier or additive use); USES (Uses)  
(arene, antistatic blends contg. thermoplastics and  
polyester ether elastomers and sulfonic  
acid salts)
- IT Polyethers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(polyester-, rubber; antistatic blends contg.  
thermoplastics and polyester ether elastomers and  
sulfonic acid salts)
- IT Polyesters, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(polyether-, rubber; antistatic blends contg.  
thermoplastics and polyester ether elastomers and  
sulfonic acid salts)
- IT 5838-34-6, Attrait AS 1000  
RL: MOA (Modifier or additive use); USES (Uses)  
(antistatic agents; antistatic blends contg.  
thermoplastics and polyester ether elastomers and  
sulfonic acid salts)
- IT 24968-12-5, PBT 26062-94-2, 1,4-Butanediol-  
terephthalic acid copolymer 106677-58-1, Cevian V 300  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(antistatic blends contg. thermoplastics and  
polyester ether elastomers and sulfonic  
acid salts)
- IT 159078-06-5 159078-07-6 159078-08-7  
RL: POF (Polymer in formulation); TEM (Technical or engineered  
material use); USES (Uses)  
(rubber; antistatic blends contg. thermoplastics and  
polyester ether elastomers and sulfonic  
acid salts)

L75 ANSWER 46 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1994:165950 HCAPLUS  
DOCUMENT NUMBER: 120:165950  
TITLE: Permanent antistatic thermoplastic  
polymer compositions with good mechanical  
properties

INVENTOR(S): Tanaka, Seiji; Chiba, Kazumasa  
 PATENT ASSIGNEE(S): Toray Industries, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05239279	A2	19930917	JP 1992-39448	19920226
PRIORITY APPLN. INFO.:				19920226
				19920226

GI



AB Title compns. contain (a) polyolefins, (b) poly(ether ester amides), (c) polyamides, and (d) styrenesulfonic acid polymers contg.  $\geq 50\%$  structural units I ( $R = H$ , alkyl, aryl;  $X = H$ , alkali metal, alk. earth metal,  $NH_4$ ;  $n = 1-20,000$ ) at wt. ratios  $a/b = (10-99)/(90-1)$ ,  $c/(a + b) = (1-50)/100$ , and  $d/(a + b) = (0.01-50)/100$ . Thus, polyethylene 85, pelletized  $\epsilon$ -caprolactam (II)- polyethylene glycol-terephthalic acid copolymer 15, II-hexamethylenediamine-isophthalic acid copolymer (40:60 mixt. of nylon 6 and nylon 6 isophthalate) 2.5, poly(Na styrenesulfonate) 0.1, and Himilan 1707 15 parts were mixed, melt kneaded at  $230^\circ$ , pelletized, and injection-molded to give disks showing surface resistivity  $7 + 10^{10} \Omega$  initially and  $3 + 10^{10} \Omega$  after washed with a detergent aq. soln. and with distd.  $H_2O$  thoroughly, dehydrated, and moistened at  $23^\circ$  and 50% relative humidity for 24 h.

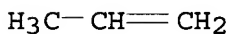
IT 9002-88-4D, Polyethylene, maleated  
 9003-07-0D, Polypropylene, maleated  
 RL: USES (Uses)  
 (antistatic polyolefin-based thermoplastics)

contg.)

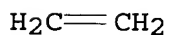
RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME),  
CM 1  
CRN 74-85-1  
CMF C2 H4



RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)  
CM 1  
CRN 115-07-1  
CMF C3 H6

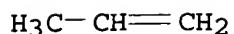


IT 9002-88-4, Polyethylene 9003-07-0,  
Polypropylene 9010-79-1, Ethylene-  
propylene copolymer  
RL: USES (Uses)  
(blends with poly(ether ester  
amides) and polyamides and  
polystyrenesulfonates, with improved antistatic and  
mech. properties)  
RN 9002-88-4 HCAPLUS  
CN Ethene, homopolymer (9CI) (CA INDEX NAME)  
CM 1  
CRN 74-85-1  
CMF C2 H4

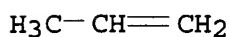


RN 9003-07-0 HCAPLUS  
CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)  
CM 1  
CRN 115-07-1  
CMF C3 H6

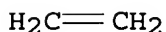




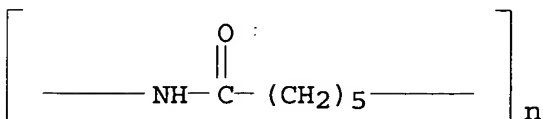
RN 9010-79-1 HCAPLUS  
 CN 1-Propene, polymer with ethene (9CI) (CA INDEX NAME)  
 CM 1  
 CRN 115-07-1  
 CMF C3 H6



CM 2  
 CRN 74-85-1  
 CMF C2 H4



IT 25038-54-4, Nylon 6, uses  
 RL: USES (Uses)  
 (blends with polyolefins and poly(ether ester amides) and polystyrenesulfonates, with improved antistatic and mech. properties)  
 RN 25038-54-4 HCAPLUS  
 CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



IC ICM C08L023-02  
 ICS C08K005-42; C08L023-26; C08L025-18; C08L077-00; C08L077-12  
 ICI C08L023-02, C08L077-00, C08L025-18  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST antistatic property thermoplastic polymer compn; mech property thermoplastic polymer compn; polyether ester amide nonexudation compn; polyethylene blend thermoplastic; caprolactam copolymer blend thermoplastic; poloxyethylene copolymer blend thermoplastic; terephthalic acid copolymer blend

- thermoplastic; hexamethylenediamine copolymer polyamide  
blend thermoplastic; isophthalic acid copolymer blend thermoplastic;  
polysodium styrenesulfonate blend thermoplastic; ethylenic ionomer  
compatibility improver thermoplastic
- IT Polyamides, uses  
RL: USES (Uses)  
(blends with polyolefins and poly(ether ester amides) and  
polystyrenesulfonates, with improved antistatic and  
mech. properties)
- IT Polyethers, uses  
RL: USES (Uses)  
(polyamide-polyester-, blends with  
polyolefins and polyamides and  
polystyrenesulfonates, with improved antistatic and  
mech. properties)
- IT Polyesters, uses  
RL: USES (Uses)  
(polyamide-polyether-, blends with polyolefins  
and polyamides and polystyrenesulfonates, with improved  
antistatic and mech. properties)
- IT Polyamides, uses  
RL: USES (Uses)  
(polyester-polyether-, blends with polyolefins  
and polyamides and polystyrenesulfonates, with improved  
antistatic and mech. properties)
- IT Alkenes, polymers  
RL: USES (Uses)  
(polymers, blends with poly(ether ester amides) and polyamides and  
polystyrenesulfonates, with improved antistatic and  
mech. properties)
- IT Plastics  
RL: USES (Uses)  
(thermo-, blends of polyolefins and poly(ether ester amides) and  
polyamides and polystyrene sulfonates, with improved  
antistatic and mech. properties)
- IT 108-31-6D, Maleic anhydride, reaction products polypropylene  
9002-88-4D, Polyethylene, maleated  
9003-07-0D, Polypropylene, maleated 25608-26-8,  
Himilan 1707 28516-43-0, Himilan 1706 143616-02-8D, maleated  
RL: USES (Uses)  
(antistatic polyolefin-based thermoplastics  
contg.)
- IT 9002-88-4, Polyethylene 9003-07-0,  
Polypropylene 9010-79-1, Ethylene-  
propylene copolymer  
RL: USES (Uses)  
(blends with poly(ether ester amides) and polyamides and  
polystyrenesulfonates, with improved antistatic and

- mech. properties)  
IT 25704-18-1 29965-34-2  
RL: USES (Uses)  
(blends with polyolefins and poly(ether ester amides) and polyamides, with improved antistatic and mech. properties)  
IT 24993-04-2 25038-54-4, Nylon 6, uses 25086-53-7,  $\epsilon$ -Caprolactam-hexamethylenediamine-terephthalic acid copolymer 26375-06-4,  $\epsilon$ -Caprolactam-hexamethylenediamine-isophthalic acid copolymer  
RL: USES (Uses)  
(blends with polyolefins and poly(ether ester amides) and polystyrenesulfonates, with improved antistatic and mech. properties)  
IT 97273-63-7 117273-96-8,  $\epsilon$ -Caprolactam- polyethylene glycol-terephthalic acid copolymer 140383-25-1  
RL: USES (Uses)  
(blends with polyolefins and polyamides and polystyrenesulfonates, with improved antistatic and mech. properties)

L75 ANSWER 47 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1994:108804 HCAPLUS  
DOCUMENT NUMBER: 120:108804  
TITLE: Antistatic agents for thermoplastic resin moldings with semipermanent antistatic property, good physical property, and gloss  
INVENTOR(S): Watanabe, Ichiji; Nakada, Tatsuya  
PATENT ASSIGNEE(S): Daicel Chem, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05239444	A2	19930917	JP 1992-43157	19920228
PRIORITY APPLN. INFO.:				19920228
				19920228

AB Antistatic agents are composed of polymers obtained by treating (A)  $\beta$ -hydroxyalkylated polyamides from polyamides as backbone polymers and polyoxyalkylenes as

branch polymers and (B) polymers contg. OH-reactive functional groups chosen from epoxy-, oxazoline-, isocyanate-, carboxyl-, carboxyl deriv.-, **sulfonic acid-**, phosphoric acid-, and those inorg. acid deriv.-groups. Thus, 5 parts  $\beta$ -hydroxyalkylated **polyamide** [prepd. from 100 parts P 1022 (powd. nylon 6) and 80 parts ethylene oxide] and 5 parts epoxy-contg. styrene copolymer (prepd. from styrene 66, acrylonitrile 24, and glycidyl methacrylate 10 parts) were dry blended, kneaded, pelletized, and dried to give an **antistatic agent**, which was blended with 90 parts Duranex 400 FP [poly(butylene terephthalate)], antioxidants, and lubricants and injection molded to give a test piece showing tensile strength 480 kg/cm<sup>2</sup>, tensile elongation 50%, Young's flexural modulus 20 + 1000 kg/cm<sup>2</sup>, notched impact strength 6 kg-cm/cm<sup>2</sup>, surface resistivity 6 + 10<sup>11</sup> (after 1 h), 5 + 10<sup>11</sup> L/cm<sup>2</sup> (after 1 mo), and good surface appearance.

IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
RL: USES (Uses)

(antistatic agents for, functional group-contg. polymer- $\beta$ -hydroxyalkylated **polyamide** reaction products as)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

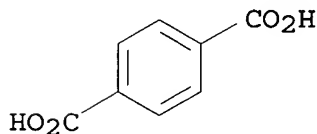
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4

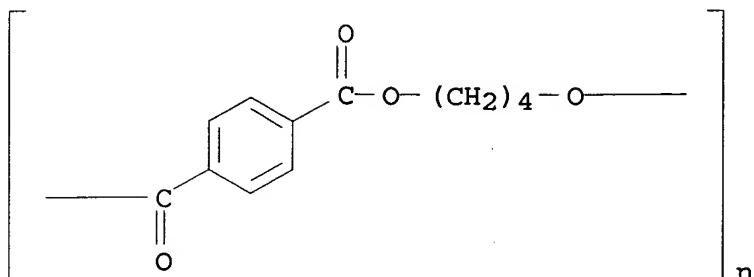


IT 24968-12-5, Poly(butylene terephthalate)

RL: USES (Uses)

(antistatic agents for, functional group-contg. polymer- $\beta$ -hydroxyalkylated **polyamide** reaction products as, Duranex 400 FP)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IC ICM C09K003-16  
 ICS C09K003-16  
 ICA C08G081-00; C08G081-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **antistatic** agent polymer reactive; hydroxyalkylated  
**polyamide** reactive **antistatic** agent; thermoplastic  
 resin molding **antistatic** agent  
 IT **Antistatic** agents  
 (functional group-contg. polymer- $\beta$ -hydroxyalkylated  
**polyamide** reaction products, for thermoplastic resin  
 moldings)  
 IT **Polyamides**, compounds  
 RL: USES (Uses)  
 (ethoxylated, reaction products with functional group-contg.  
 polymers, **antistatic** agents, for thermoplastic resin  
 moldings)  
 IT Plastics  
 RL: USES (Uses)  
 (thermo-, **antistatic** agents for, functional  
 group-contg. polymer- $\beta$ -hydroxyalkylated **polyamide**  
 reaction products as)  
 IT 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
 106677-58-1, Cevian V 300  
 RL: USES (Uses)  
 (**antistatic** agents for, functional group-contg.  
 polymer- $\beta$ -hydroxyalkylated **polyamide** reaction  
 products as)  
 IT 24936-68-3, Iupilon S 3000, miscellaneous  
 RL: MSC (Miscellaneous)  
 (**antistatic** agents for, functional group-contg.  
 polymer- $\beta$ -hydroxyalkylated **polyamide** reaction  
 products as)  
 IT 24968-12-5, Poly(butylene terephthalate)  
 RL: USES (Uses)  
 (**antistatic** agents for, functional group-contg.  
 polymer- $\beta$ -hydroxyalkylated **polyamide** reaction

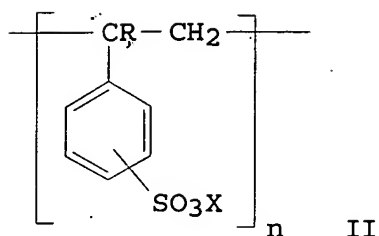
products as, Duranex 400 FP)  
IT 9011-13-6DP, Maleic anhydride-styrene copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 26141-88-8DP, Glycidyl methacrylate-methyl methacrylate copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 29762-66-1DP, Acrylonitrile-glycidyl methacrylate-styrene copolymer, reaction products with ethylene oxide-nylon 6 graft copolymer 30174-74-4DP, RPS 1005, reaction products with ethylene oxide-nylon 6 graft copolymer 107086-71-5DP, Ethylene oxide-nylon 6 graft copolymer, reaction products with functional group-contg. polymers  
RL: PREP (Preparation)  
(prepn. of, antistatic agents, for thermoplastic resin moldings)

L75 ANSWER 48 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1993:582159 HCAPLUS  
DOCUMENT NUMBER: 119:182159  
TITLE: Thermoplastic styrene polymer compositions with permanent antistatic properties  
INVENTOR(S): Tanaka, Seiji; Tokuda, Takashi; Chiba, Kazumasa  
PATENT ASSIGNEE(S): Toray Industries, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05093118	A2	19930416	JP 1991-148699	19910620
JP 2993183	B2	19991220	JP 1991-148699	19910620

PRIORITY APPLN. INFO.:

GI



- AB Title compns. giving moldings with good appearance contain 100 parts 10/90-99/1 mixts. of thermoplastic styrene (I) polymers and **poly(ether ester amides)** and 0.01-50 parts **styrenesulfonic acids** II (R = H, alkyl, aryl; X = H, alkali metal, alk. earth metal, NH<sub>4</sub>; n = 1-20,000). Thus, 50 parts of a powd. graft copolymer prepd. from 90 parts of a mixt. contg. Me methacrylate 72, I 24, and acrylonitrile 4% and 10 part solids polybutadiene latex, 50 parts 30:14.2:58.6 ω-aminodecanoic acid-dodecanedioic acid- **polyethylene glycol** copolymer and 0.1 part poly(ammonium styrenesulfonate) were injection-molded at 220° into a 2-mm disk, which showed good appearance and surface resistivity 3 + 10<sup>10</sup> Ω initially 1 + 10<sup>9</sup> Ω after washing with an aq. detergent.
- IC ICM C08L025-02  
ICS C08K005-42; C08L025-02; C08L051-04; C08L055-02; C08L077-12; C09K003-16
- ICI C08L025-02, C08L025-18, C08L077-12; C08L055-02, C08L077-12, C08L025-18
- CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 39
- ST styrene thermoplastic polymer blend **antistatic**; permanent **antistatic** thermoplastic resin; polyether ester amide blend **antistatic**; **polyester polyamide** polyether blend **antistatic**; polyammonium styrenesulfonate blend **antistatic**
- IT Plastics  
RL: USES (Uses)  
(blends of styrene thermoplastic polymers and **poly(ether ester amides)** and **styrenesulfonic acid** polymers, with permanent **antistatic** properties)
- IT **Antistatic agents**  
(**styrenesulfonic acids** and polyether-**polyester-polyamides**, for styrene polymers)
- IT Polyethers, preparation  
RL: PREP (Preparation)  
(**polyamide-polyester-**, prepn. of, blends with styrene thermoplastic polymers and **styrenesulfonic acid** polymers, with permanent **antistatic** properties)

- IT **Polyesters, preparation**  
RL: PREP (Preparation)  
(polyamide-polyether-, prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT **Polyamides, preparation**  
RL: PREP (Preparation)  
(polyester-polyether-, prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 9003-53-6, Polystyrene  
RL: USES (Uses)  
(blends with poly(ether ester amides) and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 106677-58-1P, Acrylonitrile-butadiene-styrene graft copolymer  
106974-54-3P 107592-06-3P  
RL: PREP (Preparation)  
(prepn. of, blends with poly(ether ester amides) and styrenesulfonic acid polymers, with permanent antistatic properties)
- IT 55979-70-9P 62744-35-8P, Poly(sodium styrenesulfonate)  
RL: PREP (Preparation)  
(prepn. of, blends with styrene thermoplastic polymers and poly(ether ester amides), with permanent antistatic properties)
- IT 109214-19-9P,  $\omega$ -Aminodecanoic acid-dodecanedioic acid-polyethylene glycol copolymer 117273-96-8P 140383-25-1P  
RL: PREP (Preparation)  
(prepn. of, blends with styrene thermoplastic polymers and styrenesulfonic acid polymers, with permanent antistatic properties)

L75 ANSWER 49 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:85698 HCAPLUS

DOCUMENT NUMBER: 116:85698

TITLE: Antistatic dyeable synthetic conjugate fibers with natural fiber-like handle

INVENTOR(S): Kawamoto, Masao; Tanaka, Kazuhiko; Hirakawa, Seiji; Takemura, Osamu

PATENT ASSIGNEE(S): Kuraray Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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MEI HUANG EIC1700 REM4B28 571-272-3952

08/22/2006



JP 03234815 A2 19911018 JP 1990-26563

199002  
05

JP 2842539 B2 19990106

PRIORITY APPLN. INFO.:

JP 1990-26563

199002  
05

AB The title fibers are prepd. by melt spinning together 25-70:75-30 ethylene-vinyl acetate copolymer (I) with degree of sapon.  $\geq 95\%$ , and a compn. contg. a crystn. thermoplastic polymer, 0.2-10% **sulfonic acid** alkali metal salts, and 0.1-1.5% polyoxyalkylene glycols at 10-90:90-10 ratio. Thus, 44:56 I with degree of sapon. 99%, and a compn. contg. PET, 6% **polyethylene glycol** (II) and 2% Na dodecylbenzenesulfonate (III) were together melt spun at 50:50 ratio, drawn, made into a woven fabric, and dyed to give a fabric with cottonlike bulk and resilience and friction-induced electrostatic charge 500 V and 500 V after 50 washings, vs. 3500 and 3800, resp., using a PET compn. contg. 0.1% II and 0.05% III.

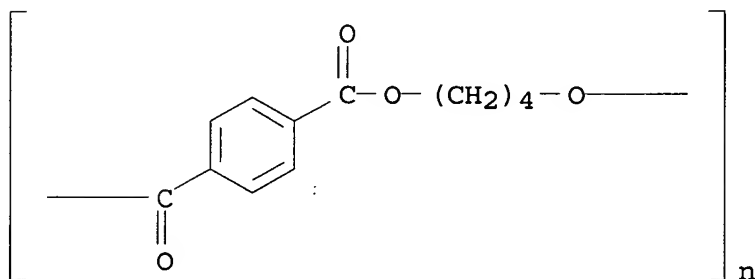
IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4  
, Nylon 6, miscellaneous 25038-59-9, Poly(ethylene terephthalate), miscellaneous 26062-94-2, Butylene glycol-terephthalic acid copolymer

RL: USES (Uses)

(fiber, bicomponent with ethylene-vinyl alc. copolymers,  
**antistatic**, with cottonlike handle)

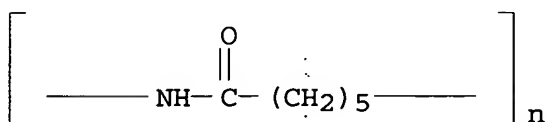
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)

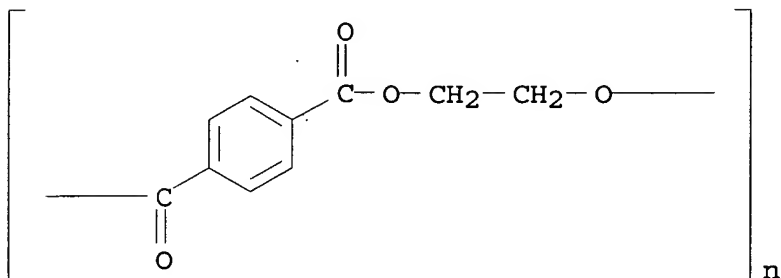


RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

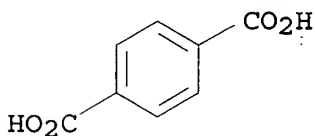
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM D01F008-10  
 ICS D01D005-30; D01F001-09; D01F006-30; D01F006-34; D01F008-04;  
 D01F008-14  
 CC 40-2 (Textiles and Fibers)  
 ST antistatic cottonlike synthetic fiber; ethylene copolymer  
 polyester conjugate fiber; nylon ethylene copolymer  
 conjugate fiber; polyoxyethylene contg synthetic fiber  
 antistatic; dodecylbenzenesulfonate contg synthetic fiber  
 antistatic

- IT Sulfonates  
RL: USES (Uses)  
(antistatic agents, with polyoxyalkylenes, for synthetic conjugate fibers)
- IT Polyoxyalkylenes, uses  
RL: USES (Uses)  
(antistatic agents, with sulfonic acid salts, for synthetic conjugate fibers)
- IT Polyamide fibers, preparation  
Polyester fibers, preparation  
RL: PREP (Préparation)  
(bicomponent with ethylene-vinyl alc. copolymer fibers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT Antistatic agents  
(sulfonic acid salts /polyoxyalkylenes, for synthetic conjugate fibers)
- IT Polyester fibers, preparation  
RL: PREP (Préparation)  
(butanediol-terephthalic acid, bicomponent with ethylene-vinyl alc. copolymer fibers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT Polyolefin fibers  
Vinal fibers  
RL: USES (Uses)  
(ethylene-vinyl alc., bicomponent with crystn. thermostatic polymers, contg. sulfonates and polyoxyalkylenes, antistatic, with cottonlike handle)
- IT 25155-30-0, Sodium dodecylbenzenesulfonate  
RL: USES (Uses)  
(antistatic agents, with polyoxyalkylenes, for synthetic conjugate fibers)
- IT 9003-11-6, Ethylene oxide-propylene oxide copolymer 25322-68-3, Polyethylene glycol  
RL: USES (Uses)  
(antistatic agents, with sulfonic acid salts, for synthetic conjugate fibers)
- IT 25067-34-9, Ethylene-vinyl alcohol copolymer  
RL: USES (Uses)  
(fiber, bicomponent with crystn. polymer, antistatic, with cottonlike handle)
- IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4, Nylon 6, miscellaneous 25038-59-9, Poly(ethylene terephthalate), miscellaneous 26062-94-2, Butylene glycol-terephthalic acid copolymer  
RL: USES (Uses)  
(fiber, bicomponent with ethylene-vinyl alc. copolymers, antistatic, with cottonlike handle)
- IT 9002-89-5  
RL: USES (Uses)  
(vinal fibers, ethylene-vinyl alc., bicomponent with crystn. thermostatic polymers, contg. sulfonates and polyoxyalkylenes,

antistatic, with cottonlike handle)

L75 ANSWER 50 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1991:681960 HCAPLUS  
 DOCUMENT NUMBER: 115:281960  
 TITLE: Aromatic polyester fibers and agents  
 for antistatic and hydrophilic  
 treatment and soilproofing  
 INVENTOR(S): Suzuki, Motoyoshi; Mori, Shigeo; Nakajo, Noboru  
 PATENT ASSIGNEE(S): Teijin Ltd., Japan; Daiichi Kogyo Seiyaku Co.,  
 Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 03182546	A2	19910808	JP 1989-320599	198912 12
JP 07103301	B4	19951108	JP 1989-320599	198912 12

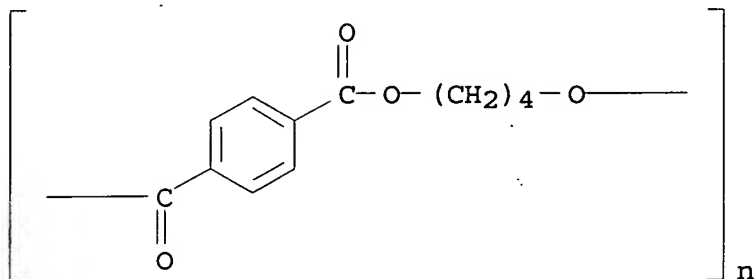
PRIORITY APPLN. INFO.: JP 1989-320599

AB The agents with good washfastness comprise a water-insol. polyether polyol (A) having mol. wt. 5000-16,000, non-reactive org. sulfonic acid salts, and phosphite antioxidants, where A is the compd.  $Z[(CH_2CH_2O)_l(ZlO)mR_1]_k$  (Z = initiator with 1-6 active H atoms; k = 1-6; Zl = C<sub>6</sub> (unsubstituted) alkylene; R<sub>1</sub> = H, C<sub>1</sub>-4 hydrocarbyl; C<sub>2</sub>-40 acyl; l = integer derived from k + l ≥ 70; m ≥ 1], which has, when k is 1, the product (P) of [mxZlO mol. wt. + R<sub>1</sub> mol. wt.]/441 being 0.4-3.0, and when k is 2-6, P being 0.23-3.0 for good title properties. Thus, PET was combined, at its transesterification stage during manuf., with stabilizers, and 0.2% (based on PET) of an A, i.e. HO[CH(R)CH<sub>2</sub>O]m(CH<sub>2</sub>CH<sub>2</sub>O)l[CH<sub>2</sub>CH(R)O]mH (R = C<sub>j</sub>H<sub>2j+1</sub>; j = 14-16, av. 15; av. l = 180, av. m = 10; mol. wt. 13,018), followed by post polymn., addn. with Irganox 1010, and pelletizing. The pellets were then spun to give fibers, fabrics from which showed excellent antistatic property, water absorption, and soilproofing property.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2  
 , Poly(butylene terephthalate)  
 RL: USES (Uses)  
 (fibers, antistatic, hydrophilizing and soilproofing agents for)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

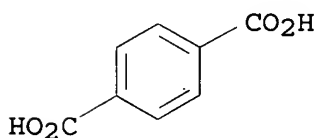
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02

ICS C08K005-42; C08K005-524; C08L071-02; D01F006-62; D01F006-92; D01F008-14

CC 40-2 (Textiles and Fibers)

Section cross-reference(s): 37

ST **polyester** fabric soilproofing agent polyether;  
hydrophilizing agent polyether polyol fabric; **antistatic**  
agent polyether polyol fabric; phosphite antioxidant  
**polyester** fiber

IT Polyoxyalkylenes, uses and miscellaneous  
RL: USES (Uses)

- (antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT Polyester fibers, uses and miscellaneous  
RL: USES (Uses)  
(fabrics, antistatic, hydrophilizing and soilproofing agents for)
- IT Antioxidants  
(for polyester fibers, org. phosphite esters and sulfonic acid salts as)
- IT Antistatic agents  
(for polyester fibers, polyoxyalkylene polyols as)
- IT Soilproofing  
(agents, for polyester fibers, polyoxyalkylene polyols as)
- IT Sulfonic acids, compounds  
RL: USES (Uses)  
(alkane, sodium salts, antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT 75-21-8D, Oxirane, polymers with alkylene oxides, polyol derivs.  
111503-99-2  
RL: USES (Uses)  
(antistatic, hydrophilizing and soilproofing compns. contg., water-insol., for textiles)
- IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2  
, Poly(butylene terephthalate)  
RL: USES (Uses)  
(fibers, antistatic, hydrophilizing and soilproofing agents for)
- IT 2082-79-3, Irganox 1076 3806-34-6 6683-19-8, Irganox 1010  
13003-12-8, 4,4'-Butylidenebis(3-methyl-6-tert-butylphenyl  
ditridecylphosphite 13598-36-2D, Phosphorous acid, esters  
25417-20-3, Sodium dibutyl-naphthalenesulfonate 29062-27-9, Lithium  
dodecylbenzenesulfonate 31570-04-4, Tris(2,4-di-tert-  
butylphenyl)phosphite 39045-67-5 40601-76-1 68457-45-4  
80693-00-1, Bis(2,6-di-tert-butyl-4-methylphenyl)pentaerythritol  
diphosphite 94248-46-1 137222-69-6 137741-38-9  
RL: USES (Uses)  
(oxidants, with polyether polyol antistatic,  
hydrophilizing and soilproofing agents, for fabric)

L75 ANSWER 51 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1991:610305 HCAPLUS  
DOCUMENT NUMBER: 115:210305  
TITLE: Preparation and uses of primed acrylic polymer  
films  
INVENTOR(S): Hart, Charles Richard  
PATENT ASSIGNEE(S): Imperial Chemical Industries PLC, UK  
SOURCE: Eur. Pat. Appl., 10 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 429179	A2	19910529	EP 1990-311558	19901022
EP 429179	A3	19920603		
EP 429179	B1	19950517		
R: AT, BE, CH, DE, DK, ES, FR, GB, IT, LI, LU, NL, SE				
AU 9064711	A1	19910516	AU 1990-64711	19901019
AU 622355	B2	19920402		
ES 2071781	T3	19950701	ES 1990-311558	19901022
CA 2028316	AA	19910508	CA 1990-2028316	19901023
ZA 9008524	A	19911030	ZA 1990-8524	19901024
BR 9005614	A	19910917	BR 1990-5614	19901106
JP 03227626	A2	19911008	JP 1990-299086	19901106
JP 3048622	B2	20000605		
CN 1051570	A	19910522	CN 1990-108938	19901107
CN 1033516	B	19961211		
KR 149666	B1	19981001	KR 1990-17942	19901107
US 5906888	A	19990525	US 1995-456617	19950601
PRIORITY APPLN. INFO.:			GB 1989-25095	A 19891107
			GB 1990-23090	19901024
			US 1990-608399	B1 19901102

US 1992-935660

B1

199208  
26

AB Films useful for metalization, drafting, photog., and magnetic cards are primed with copolymers of alkyl acrylates 35-40, alkyl methacrylates 35-40, unsatd. carboxylic acids 10-15, and arom. sulfonic acid and/or its salt 15-20 mol%. Thus, an oriented PET film was coated with a mixt. of 35:15:35:15 Et acrylate-itaconic acid-Me methacrylate-p-styrenesulfonic acid copolymer 3, surfactant 0.03, melamine resin 0.3, and p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>NH<sub>4</sub> 0.03% dried, biaxially oriented, and heat-set at 220° to give a film with satisfactory cellulose acetate butyrate lacquer and gelatin adhesion and surface resistivity 9.9 Ω/square; vs. unsatisfactory and ≥19, resp., with no primer.

IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
25038-59-9, Poly(ethylene terephthalate), uses and miscellaneous

RL: USES (Uses)

(films, antistatic primers for, acrylic polymers as)

RN 9020-32-0 HCAPLUS

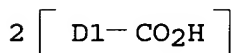
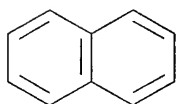
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

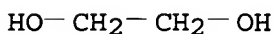
CCI IDS



CM 2

CRN 107-21-1

CMF C2 H6 O2

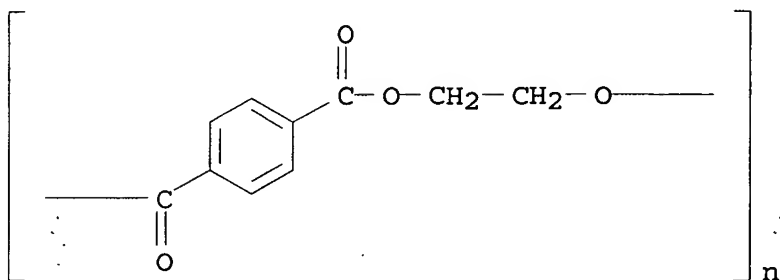




RN 9020-73-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
 (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 25038-59-9 HCAPLUS  
 CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IC ICM C08J007-04  
 ICS C09D133-06  
 CC 42-7 (Coatings, Inks, and Related Products)  
 Section cross-reference(s): 74  
 ST polyester film polyacrylate primer; methacrylate primer  
 plastic film; itaconic acid copolymer primer; styrenesulfonate  
 copolymer primer; magnetic card film primer; photog film primer;  
 primer plastic film; acrylate polymer primer film  
 IT Photographic films  
 (antistatic coatings for)  
 IT Antistatic agents  
 (carboxyl- and sulfo group-bearing acrylic polymers, for plastic  
 films)  
 IT Polyesters, uses and miscellaneous  
 RL: USES (Uses)  
 (films, antistatic primers for, acrylic polymers as)  
 IT Coating materials  
 (antistatic, primers, acrylic polymers bearing carboxy  
 and sulfo groups, for plastic films)  
 IT Recording apparatus  
 (magnetic, cards, antistatic coatings for)  
 IT 9020-32-0, Poly(ethylene naphthalate) 9020-73-9  
 25038-59-9, Poly(ethylene terephthalate), uses and  
 miscellaneous  
 RL: USES (Uses)  
 (films, antistatic primers for, acrylic polymers as)  
 IT 24980-96-9, Ethyl acrylate-itaconic acid-methyl methacrylate  
 copolymer 136821-10-8 136837-50-8  
 RL: USES (Uses)  
 (primers, antistatic, for plastic films)

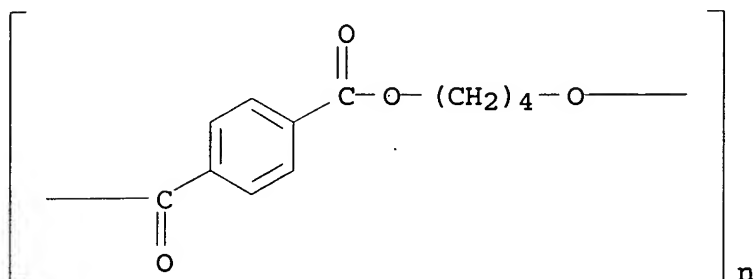
L75 ANSWER 52 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1990:460676 HCAPLUS  
 DOCUMENT NUMBER: 113:60676  
 TITLE: Polymer composition containing alkanesulfonate salts with improved tracking index and antistatic properties  
 INVENTOR(S): Tabankia, Farshid M. H.; De Boer, Jan  
 PATENT ASSIGNEE(S): General Electric Co., USA  
 SOURCE: Eur. Pat. Appl., 5 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 357896	A1	19900314	EP 1989-111384	19890622
R: DE, ES, FR, GB, IT, NL				
NL 8802046	A	19900316	NL 1988-2046	19880818
US 4965338	A	19901023	US 1989-391005	19890809
JP 02110159	A2	19900423	JP 1989-209738	19890815
PRIORITY APPLN. INFO.:			NL 1988-2046	A 19880818

AB A polymer mixt., comprising an arom. polyester, e.g., poly(butylene terephthalate) (I), 1-10 phr alkanesulfonate salt, and optionally, an arom. polycarbonate and stabilizers, exhibits high tracking index and good antistatic properties. Thus, I 100, C12-20 alkanesulfonate salt 4.2, and a mixt. of conventional stabilizers 0.15 wt. parts were mixed, extruded, pelletized, and injection-molded to give specimens showing sheet resistance 1010  $\Omega$ /sq, comparative tracking index 550 V, notch impact value 51 J/m, and elongation at fracture 162%, compared with 1014, 450, 49, and 69, resp., for a similar compn. without the alkanesulfonate salt.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2, Poly(butylene terephthalate)  
 RL: USES (Uses)  
 (blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

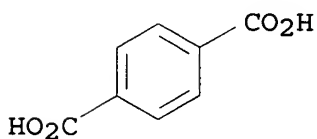
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4



IC ICM C08K005-42  
 ICS C08L067-02; C09K003-16  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **polyester** alkanesulfonate salt blend **antistatic**;  
 polycarbonate **polyester**; elec property **polyester**  
 alkanesulfonate salt blend  
 IT **Antistatic agents**  
 (alkanesulfonate salts, for **polyesters**)  
 IT **Polyesters**, uses and miscellaneous  
 RL: USES (Uses)

(blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

IT Sulfonic acids, compounds  
RL: USES (Uses)  
(C12-20-alkane, sodium salts, antistatic additives, for polyester compns.)

IT Polycarbonates, uses and miscellaneous  
RL: USES (Uses)  
(bisphenol-based, blends with polyesters and alkanesulfonate salts, with improved antistatic properties and tracking index)

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2  
, Poly(butylene terephthalate)  
RL: USES (Uses)  
(blends with alkanesulfonate salts, with improved tracking index and antistatic properties)

L75 ANSWER 53 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1989:575501 HCAPLUS

DOCUMENT NUMBER: 111:175501

TITLE: Antistatic synthetic polymer compositions

INVENTOR(S): Goto, Shinya; Fujioka, Hideaki

PATENT ASSIGNEE(S): Kao Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01054068	A2	19890301	JP 1987-209730	198708 24
JP 06076555	B4	19940928		
PRIORITY APPLN. INFO.:			JP 1987-209730	198708 24

AB The title compns. contain 100 parts synthetic polymers and 0.5-5.0 parts antistatic agents contg. (50-95):(50-5) mixts. of (A) salts of C10-18 alkanesulfonic acids or of (C10-18 alkyl)benzenesulfonic acids as an anionic surfactant and (B) polyolefin waxes, citrate esters, montanic acid, and/or montan wax as a dispersant. Thus, 100 parts poly(butylene terephthalate) (I) was mixed with 2 parts of an antistatic agent contg. 85% Na alkanesulfonate [II; prepd. by sulfonation of a C10-18 (av. 14) paraffin mixt. followed by neutralizing] and 15% polyethylene wax (mol. wt. 1500),

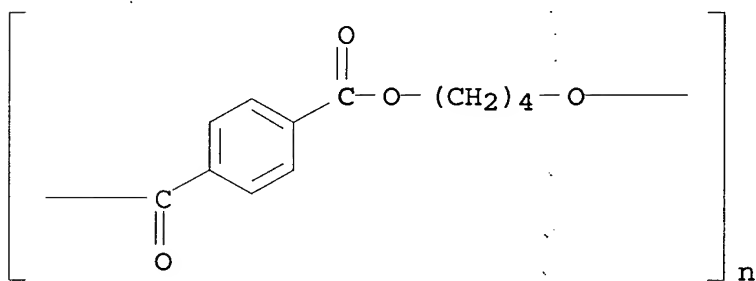
extruded, and injection-molded at 220-250° into a 3-mm plate, which showed no discoloration and white color after being kept at 220° in an oven for 30 min, compared with discoloration and a pale yellow color for a control contg. 100 parts I and 2 parts II. The plate also showed surface resistivity  $\leq 1 \times 10^{12}$   $\Omega$  after being kept at 25° and 50% relative humidity for 24 h.

IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4  
 , Nylon 6, uses and miscellaneous 25038-59-9,  
 Poly(ethylene terephthalate), uses and miscellaneous  
 26062-94-2, 1,4-Butanediol-terephthalic acid copolymer  
 RL: USES (Uses)

(antistatic agents for, anionic surfactant and  
 dispersing agents as)

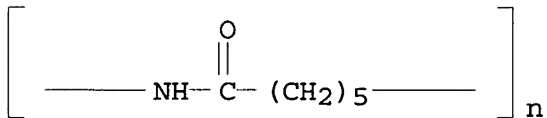
RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



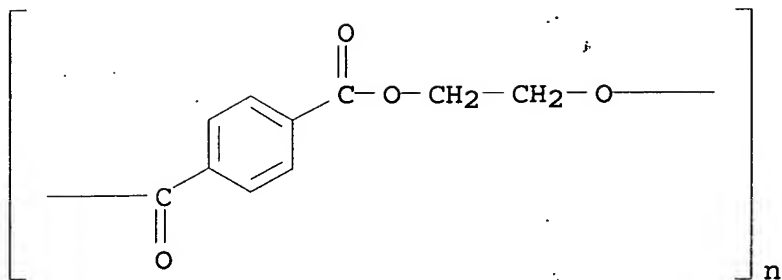
RN 25038-54-4 HCAPLUS

CN Poly[imino(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 25038-59-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

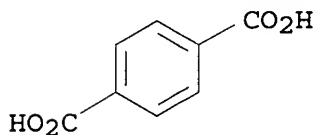
CM 1

CRN 110-63-4  
 CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0  
 CMF C8 H6 O4

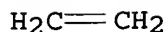


IT 9002-88-4, Polyethylene 9003-07-0,  
 Polypropylene  
 RL: USES (Uses)  
 (wax, dispersants, antistatic agents contg. anionic  
 surfactants and, for polymers)

RN 9002-88-4 HCAPLUS  
 CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

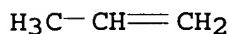
CRN 74-85-1  
 CMF C2 H4



RN 9003-07-0 HCAPLUS  
 CN 1-Propene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 115-07-1  
 CMF C3 H6



IC ICM C08L101-00  
 ICS C08K005-10; C08K005-42  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **polybutylene terephthalate antistatic**  
 agent; alkanesulfonate salt **antistatic** agent; anionic  
 surfactant **antistatic** agent; dispersant blend polymer  
**antistatic** agent; alkylbenzenesulfonate anionic surfactant  
**antistatic** agent; **antistatic** agent dispersant  
 surfactant blend  
 IT Polycarbonates, uses and miscellaneous  
**Polyesters**, uses and miscellaneous  
 RL: USES (Uses)  
 (antistatic agents for, anionic surfactant and  
 dispersing agents as)  
 IT Polymers, uses and miscellaneous  
 RL: USES (Uses)  
 (antistatic agents for, anionic surfactants and  
 dispersing agents as)  
 IT Montan wax  
 RL: USES (Uses)  
 (dispersants, antistatic agents contg. anionic  
 surfactants and, for polymers)  
 IT **Antistatic** agents  
 (for polymers, anionic surfactants and dispersants as)  
 IT Dispersing agents  
 (polyolefin waxes and citrate esters and montanic acid  
 and montan wax, antistatic agents contg, for polymers)  
 IT Surfactants  
 (anionic, alkanesulfonates or alkylbenzenesulfonates,  
**antistatic** agents contg., for polymers)  
 IT 25155-30-0, Sodium dodecylbenzenesulfonate  
 RL: USES (Uses)  
 (anionic surfactants, antistatic agents contg.  
 dispersants and, for polymers)  
 IT 24968-12-5, Poly(butylene terephthalate) 25038-54-4  
 , Nylon 6, uses and miscellaneous 25038-59-9,  
 Poly(ethylene terephthalate), uses and miscellaneous

26062-94-2, 1,4-Butanediol-terephthalic acid copolymer

RL: USES (Uses)

(antistatic agents for, anionic surfactant and dispersing agents as)

IT 506-48-9, Montanic acid 29589-99-9, Distearyl citrate 93776-47-7

RL: USES (Uses)

(dispersants, antistatic agents contg. anionic surfactants and, for polymers)

IT 9002-88-4, Polyethylene 9003-07-0,

Polypropylene

RL: USES (Uses)

(wax, dispersants, antistatic agents contg. anionic surfactants and, for polymers)

L75 ANSWER 54 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1987:197608 HCAPLUS

DOCUMENT NUMBER: 106:197608

TITLE: Antistatic polyester

compositions

INVENTOR(S): Yonetani, Kiichi; Okita, Kiyomi; Kotani,

Noriyoshi

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 61258860	A2	19861117	JP 1985-99590	19850513
JP 06004757	B4	19940119		
PRIORITY APPLN. INFO.:			JP 1985-99590	19850513

AB The title compns. with excellent mech. properties are manufd. by melt mixing with a screw extruder (A) 100 parts arom. polyester, (B) 0.05-15 parts (modified) alkylene glycol polymer, (C) 0.01-5 parts metal salt of R(SO<sub>3</sub>H)<sub>n</sub> (R = C<sub>6</sub>-60 org. groups; n = 1-4), (D) 3-100 parts inorg. filler, and (E) 0-50 parts org. Br compds.; the polyester and inorg. filler were blended and then blended with the (modified) alkylene glycol polymers. Poly(butylene terephthalate) 100, glass fiber 50, and Na dodecylbenzenesulfonate 0.1 part were melt mixed, pelletized with a 250° screw extruder, and combined with 5 parts polyethylene glycol; repeating the procedure and injection molding at 250° gave test pieces which had surface



resistivity  $3.6 + 10^{12} \Omega$ , half value period 34 s,  
tensile strength 1300 kg/cm<sup>2</sup>, elongation 3.6% and Izod impact  
strength 6.4 kg-cm/cm, vs.  $4.7 + 10^{12}$ , 35, 920, 2.6, and 5.2,  
resp., for a control prep. similarly but by melt extrusion in one  
step.

IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2

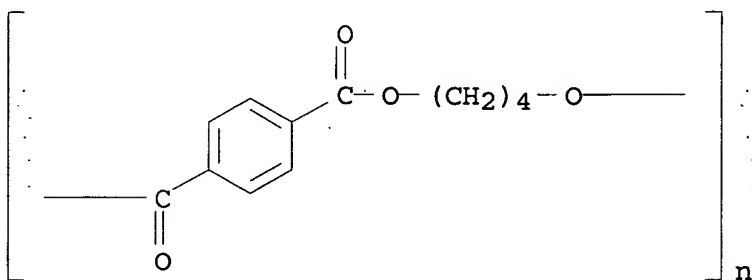
, 1,4-Butanediol-terephthalic acid copolymer

RL: USES (Uses)

(alkylene glycol polymer blends, by melt extrusion in two steps,  
antistatic)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
INDEX NAME)



RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 110-63-4

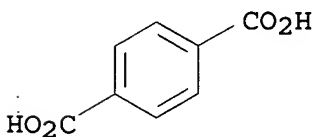
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



IC ICM C08L067-02  
ICS C08K013-02  
ICI C08L067-02, C08L071-02; C08K013-02, C08K005-42, C08K003-00;  
C08K013-02, C08K005-42, C08K003-00, C08K005-00  
CC 38-3 (Plastics Fabrication and Uses)  
Section cross-reference(s): 76  
ST **antistatic polyester polyethylene**  
glycol blend; tensile strength **polyester** blend  
**antistatic**; melt extrusion **polyester** blend  
**antistatic**  
IT Plastics, extruded  
RL: USES (Uses)  
(**polyester**-alkylene glycol polymer blends, contg. metal  
sulfonate, **antistatic**)  
IT **Sulfonic acids**, compounds  
RL: USES (Uses)  
(alkane, sodium salts, **polyester**-alkylene glycol  
polymer blends, by two-step melt mixing, **antistatic**)  
IT **Polyesters**, uses and miscellaneous  
RL: USES (Uses)  
(arom., alkylene glycol polymer blends, by melt extrusion in two  
steps, **antistatic**)  
IT Extrusion of plastics and rubbers  
(melt, screw, of **polyester**-alkylene glycol  
polymer-metal sulfonate blends, by two-step melt mixing,  
**antistatic**)  
IT Polyoxyalkylenes, uses and miscellaneous  
RL: USES (Uses)  
(**polyamide**-, arom. **polyester** blends, by melt  
extrusion in two steps, **antistatic**)  
IT Polyoxyalkylenes, uses and miscellaneous  
RL: USES (Uses)  
(**polyester**-, arom. **polyester** blends, by melt  
extrusion in two steps, **antistatic**)  
IT **Polyamides**, uses and miscellaneous  
**Polyesters**, uses and miscellaneous  
RL: USES (Uses)  
(polyoxyalkylene-, arom. **polyester** blends, by melt  
extrusion in two steps, **antistatic**)  
IT 24968-12-5, Poly(butylene terephthalate) 26062-94-2  
, 1,4-Butanediol-terephthalic acid copolymer  
RL: USES (Uses)  
(alkylene glycol polymer blends, by melt extrusion in two steps,  
**antistatic**)  
IT 25322-68-3, Poly(ethylene glycol) 25322-69-4, Poly(  
**propylene** glycol) 25767-68-4 26403-72-5, Poly(ethylene  
glycol) diglycidyl ether 30497-78-0  
RL: USES (Uses)  
(arom. **polyester** blends, by melt extrusion in two  
steps, **antistatic**)  
IT 25155-30-0, Sodium dodecylbenzenesulfonate  
RL: USES (Uses)

(polyester-alkylene glycol polymer blends, by two-step melt mixing, antistatic)

L75 ANSWER 55 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
ACCESSION NUMBER: 1985:596866 HCAPLUS  
DOCUMENT NUMBER: 103:196866  
TITLE: Antistatic agents for synthetic polymers  
PATENT ASSIGNEE(S): Takemoto Oil and Fat Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 60094432	A2	19850527	JP 1983-203385	19831029
JP 04000098	B4	19920106	JP 1983-203385	19831029

PRIORITY APPLN. INFO.: JP 1983-203385

AB Antistatic agents having excellent thermal stability and miscibility with polymers comprise alkali metal alkylarenesulfonates and nonionic surfactants prepd. by the alkoxylation of hydroxy or carboxy compds. contg.  $\geq 7$  C. Thus, a mixt. of poly(Me methacrylate) (I) [9011-14-7] 95, glycerol monolaurate polyoxyethylene ether [51158-08-8] 4, and Li dodecylbenzenesulfonate [29062-27-9] 1% gave moldings having surface resistivity  $3 + 10^{10} \Omega$ , good retention of antistatic properties during >30 days at 80°, and no effect on the color and transparency of I.

IT 9002-88-4 26062-94-2

RL: USES (Uses)

(antistatic agents for, anionic and nonionic surfactants as)

RN 9002-88-4 HCAPLUS

CN Ethene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 74-85-1

CMF C2 H4

H<sub>2</sub>C=CH<sub>2</sub>

RN 26062-94-2 HCAPLUS  
 CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

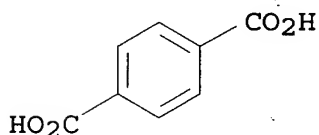
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

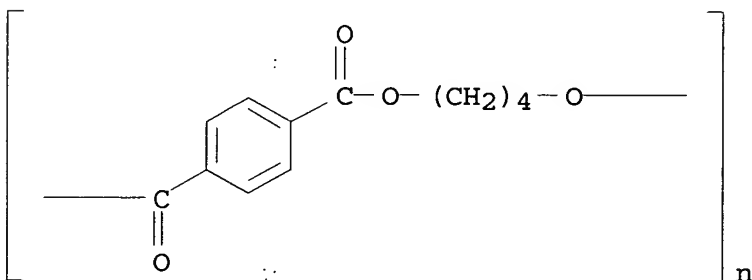
CRN 100-21-0

CMF C8 H6 O4



IT 24968-12-5  
 RL: PRP (Properties)  
 (antistatic agents for, anionic and nonionic surfactants as)

RN 24968-12-5 HCAPLUS  
 CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



IC ICM C08K005-04  
 ICS C08K005-42; C09K003-16  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 46  
 ST antistatic agent surfactant polymer; anionic surfactant

antistatic agent; nonionic surfactant antistatic agent; polymethyl methacrylate antistatic agent

IT Antistatic agents  
(alkali metal alkylarenesulfonate-polyoxyalkylene deriv. mixts., for polymers)

IT Polyesters, uses and miscellaneous  
RL: USES (Uses)  
(antistatic agents for, anionic and nonionic surfactants as)

IT Polyoxyalkylenes  
RL: USES (Uses)  
(derivs., antistatic agents, for polymers)

IT Sulfonic acids, compounds  
RL: USES (Uses)  
(alkylarene, alkali metal salts, antistatic agents, for polymers)

IT Surfactants  
(anionic, antistatic agents, for polymers)

IT Surfactants  
(nonionic, antistatic agents, for polymers)

IT 9002-86-2 9002-88-4 26062-94-2 51158-08-8  
RL: USES (Uses)  
(antistatic agents for, anionic and nonionic surfactants as)

IT 9003-53-6 9011-14-7 24968-12-5  
RL: PRP (Properties)  
(antistatic agents for, anionic and nonionic surfactants as)

IT 9002-92-0 9004-81-3 9005-64-5 25155-30-0 25322-68-3D,  
sec-C13-14 alkyl ethers 29062-27-9 85409-94-5 94275-81-7  
99143-25-6 99143-26-7 99149-57-2 99240-74-1  
RL: USES (Uses)  
(antistatic agents, for polymers)

L75 ANSWER 56 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1984:193039 HCAPLUS

DOCUMENT NUMBER: 100:193039

TITLE: Thermoplastic polyester compositions

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 59018751	A2	19840131	JP 1982-128083	198207 22

PRIORITY APPLN. INFO.:

JP 1982-128083

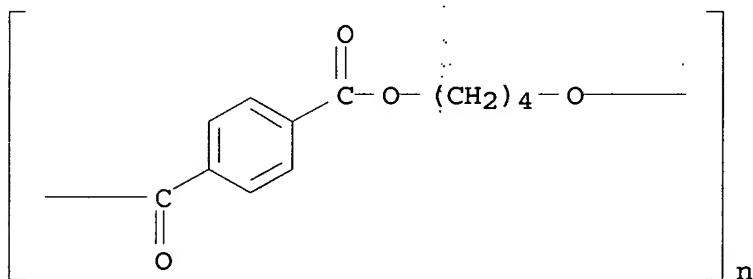
198207

22

AB Thermoplastic products having excellent **antistatic** and vibration damping characteristics are fabricated from compns. of **polyesters** comprising 1,4-butanediol (I), dodecanedioic acid (II), terephthalic acid (III), and, optionally, other monomer residues 100, polyalkylene glycol derivs. 0.01-40, and metal salts of arom. **sulfonic acids** 0.01-10 parts. Thus, 100:10:90 mol ratio I-II-III copolymer (IV) [61778-68-5] 100, polybutylene glycol [25190-06-1] 2, and sodium dodecylbenzenesulfonate [25155-30-0] 1 part were combined, pelletized, and injection molded into gears or extruded into friction plates which had surface resistivity  $7 + 10^{10}$  and  $6 + 10^{10} \Omega$ , and noise levels 40 and 50 dB, resp., when turned at fixed speeds, compared with  $3 + 10^{16}$  and  $3 + 10^{16} \Omega$ , and 45 and 55 dB, resp., for the same parts made of IV alone.

IT 24968-12-5 26062-94-2  
RL: USES (Uses)  
(polyester-polyether blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

RN 24968-12-5 HCAPLUS  
CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



RN 26062-94-2 HCAPLUS  
CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

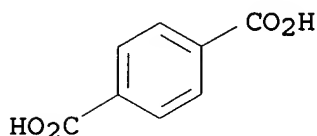
CRN 110-63-4  
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC C08L067-02; C08K005-42  
 ICI C08L067-02, C08L071-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **antistatic vibration damping polyester** molding; extrudate **polyester antistatic vibration damping**; sound damping **antistatic polyester** molding; polyoxybutylene **polyester** blend molding; benzenesulfonate salt **polyester** molding; butanediol dodecanedioic terephthalic acid terpolymer  
 IT **Antistatic agents**  
     (arom. sulfonate salts, for butanediol-dodecanedioic acid-terephthalic acid copolymer blends with polyoxyalkylene derivs.)  
 IT **Polyesters, uses and miscellaneous**  
     RL: USES (Uses)  
     (blends with polyoxyalkylene derivs., contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)  
 IT Plastics, extruded  
     Plastics, molded  
     RL: USES (Uses)  
     (butanediol-dodecanedioic acid-terephthalic acid copolymer blends with polyoxyalkylene derivs., contg. arom. sulfonate salts, **antistatic**, vibration-damping)  
 IT **Sulfonic acids, compounds**  
     RL: USES (Uses)  
     (arene, metal salts, butanediol-dodecanedioic acid-terephthalic acid copolymer blends contg., moldings, **antistatic**, vibration-damping)  
 IT Polyethers  
     RL: USES (Uses)  
     (**polyamide-**, butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)  
 IT Polyethers  
     RL: USES (Uses)  
     (**polyester-**, butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)  
 IT **Polyamides, uses and miscellaneous**

**Polyesters, uses and miscellaneous**

RL: USES (Uses)

(polyether-, butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 61778-68-5

RL: USES (Uses)

(blends with polyoxyalkylene derivs., contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 25190-06-1 39409-99-9 76309-19-8

RL: USES (Uses)

(butanediol-dodecanedioic acid-terephthalic acid copolymer blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

IT 25155-30-0

RL: USES (Uses)

(polyester blends contg., moldings, **antistatic**, vibration-damping)

IT 24968-12-5 26062-94-2

RL: USES (Uses)

(polyester-polyether blends, contg. arom. sulfonate salts, moldings, **antistatic**, vibration-damping)

L75 ANSWER 57 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1982:407286 HCAPLUS

DOCUMENT NUMBER: 97:7286

TITLE: Molded **polyesters**

PATENT ASSIGNEE(S): Toray Industries, Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 57005748	A2	19820112	JP 1980-81109	198006 16
JP 63018619	B4	19880419		
PRIORITY APPLN. INFO.:			JP 1980-81109	A 198006 16

AB Compns. contg. a thermoplastic **polyester**, a polyalkylene glycol or its deriv. and a **sulfonic acid salt** as **antistatic** agents, and graphite, MoS<sub>2</sub>, or graphite fluoride are useful for the manuf. of sliding parts for machines. Thus, a poly(butylene terephthalate) (I) [26062-94-2] compn. contg. adipic acid-ε-caprolactam-



hexamethylenediamine-polyethylene glycol copolymer  
 [76309-19-8] 2, Na dodecylbenzenesulfonate [25155-30-0] 1, and  
 graphite 3% was pelletized and injection molded to give a product  
 with surface elec. resistance  $2 + 10^{12} \Omega$ , compared with  
 $3 + 10^{16} \Omega$  for a product molded from I only.

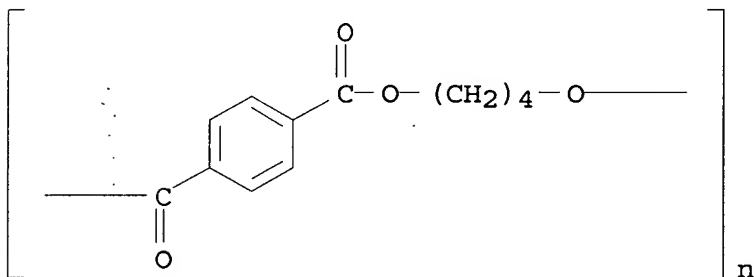
IT 24968-12-5

RL: USES (Uses)

(antistatic agents, contg. sodium  
 dodecylbenzenesulfonate, polyester molding compns.  
 contg. antifriction materials and)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA  
 INDEX NAME)



IT 26062-94-2

RL: USES (Uses)

(molding compns, contg. antistatic agents and  
 antifriction materials)

RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA  
 INDEX NAME)

CM 1

CRN 110-63-4

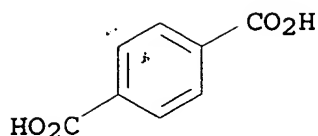
CMF C4 H10 O2

HO-(CH<sub>2</sub>)<sub>4</sub>-OH

CM 2

CRN 100-21-0

CMF C8 H6 O4



- IC C08L067-02; C08K003-04; C08K003-30; C08K005-42  
 CC 37-6 (Plastics Manufacture and Processing)  
 ST **polybutylene terephthalate** molding  
**antistatic; polyester** molding **antistatic**  
 ; sliding part **polyester** molding; graphite  
**polyester** molding sliding part; molybdenum disulfide  
**polyester** molding; fluoride graphite **polyester**  
 molding; antifriction material **polyester** molding  
 IT Antifriction materials  
 (graphite, molybdenum disulfide or graphite fluoride,  
**polyester** molding compns. contg. **antistatic**  
 agents and)  
 IT Electric apparatus  
 (parts for, manuf. of, from poly(butylene terephthalate) compns.  
 contg. **antistatic** agents and antifriction materials)  
 IT **Antistatic** agents  
 (polyether-sodium dodecylbenzenesulfonate, **polyester**  
 molding compns. contg. antifriction materials and)  
 IT Machinery  
 (sliding parts for, manuf. of, poly(butylene terephthalate)  
 molding compns. contg. **antistatic** agents and  
 antifriction materials for)  
 IT **Polyesters**, uses and miscellaneous  
 RL: USES (Uses)  
 (butanediol-terephthalic acid, molding compns., contg.  
 polyether-sodium dodecylbenzenesulfonate **antistatic**  
 agents and antifriction materials)  
 IT **Polyamides**, uses and miscellaneous  
**Polyesters**, uses and miscellaneous  
 RL: USES (Uses)  
 (polyether-, **antistatic** agents, contg. sodium  
 dodecylbenzenesulfonate, **polyester** molding compns.  
 contg. antifriction materials and)  
 IT 1317-33-5, uses and miscellaneous 7782-42-5, uses and  
 miscellaneous 11113-63-6  
 RL: USES (Uses)  
 (antifriction materials, **antistatic polyester**  
 molding compns. contg.)  
 IT 25155-30-0  
 RL: USES (Uses)  
 (**antistatic** agents, contg. polyalkylene glycol derivs,  
**polyester** molding compns. contg. antifriction materials  
 and)  
 IT 39409-99-9  
 RL: USES (Uses)

(antistatic agents, contg. sodium  
dodecylbenzenesulfonate, polyester molding compns.  
antifriction materials and)

IT 24968-12-5 76309-19-8

RL: USES (Uses)

(antistatic agents, contg. sodium  
dodecylbenzenesulfonate, polyester molding compns.  
contg. antifriction materials and)

IT 26062-94-2

RL: USES (Uses)

(molding compns, contg. antistatic agents and  
antifriction materials)

L75 ANSWER 58 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1979:492896 HCAPLUS

DOCUMENT NUMBER: 91:92896

TITLE: Antistatic polyester fibers

INVENTOR(S): Funakoshi, Wataru; Nawata, Kiyoshi; Tsunawaki,  
Kiyokazu; Kuratsuji, Takatoshi

PATENT ASSIGNEE(S): Teijin Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 54065757	A2	19790526	JP 1977-131443	197711 04
JP 62012253	B4	19870317		
PRIORITY APPLN. INFO.:			JP 1977-131443	A 197711 04

AB Alkanesulfonic acid metal salts are mixed with  
>10 wt.% of powd. (<1000  $\mu$  diam.) polyester to give  
caking-resistant compns. which are blended with a similar  
polyester and spun smoothly to give antistatic  
fibers. Thus, Na dodecanesulfonate [2386-53-0] 20,  
polyethylene glycol (mol. wt. 20,000) 80, and poly(ethylene  
terephthalate) (I) (100  $\mu$  diam., softening temp. 262°) 20  
parts were mixed to give a compn. which did not cake after 1 wk in  
an atm. of relative humidity 90%. A mixt. of 120 parts of the above  
compn. and 1480 parts I was melted, pelletized, dried, spun through  
48 0.3-mm-diam. orifices at 290° and 80 g/min, wound at 1500  
m/min, and drawn 320% at 85° to give 150-denier/48-filament  
yarn having static half life 0.5 and 1.5 s before and after 10  
laundering.

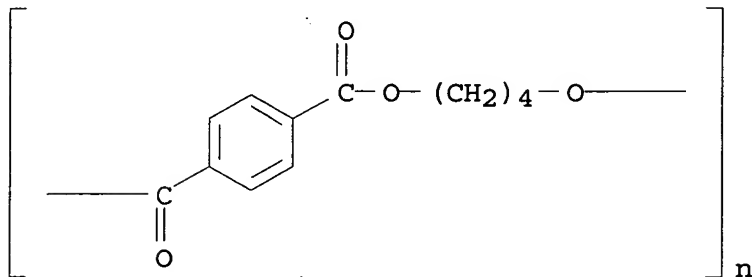
IT 24968-12-5 26062-94-2

RL: USES (Uses)

(dispersing agents, for sodium alkanesulfonates in polyester fibers)

RN 24968-12-5 HCAPLUS

CN Poly(oxy-1,4-butanediylloxycarbonyl-1,4-phenylenecarbonyl) (9CI) (CA INDEX NAME)



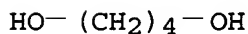
RN 26062-94-2 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, polymer with 1,4-butanediol (9CI) (CA INDEX NAME)

CM 1

CRN 110-63-4

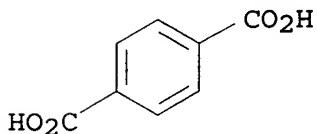
CMF C4 H10 O2



CM 2

CRN 100-21-0

CMF C8 H6 O4



IC C08L067-02; C08J003-22; C08K005-42

CC 39-2 (Textiles)

ST sodium dodecanesulfonate antistatic agent;  
polyester fiber antistatic agent; dispersing agent  
antistatic compd

IT Polyester fibers, uses and miscellaneous

RL: USES (Uses)  
 (antistatic agents for, sodium alkanesulfonates as,  
 dispersing agents for)

IT Polycarbonates  
 Polyesters, uses and miscellaneous

RL: USES (Uses)  
 (dispersing agents, for sodium alkanesulfonates in  
 polyester fibers)

IT Dispersing agents  
 (polyesters and polycarbonates, for sodium  
 alkanesulfonates in polyester fibers)

IT Antistatic agents  
 (sodium alkanesulfonates, for polyester fibers,  
 dispersing agents for)

IT 2386-53-0 27193-89-1  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (antistatic agents, for polyester fibers,  
 dispersing agents for)

IT 24936-68-3, uses and miscellaneous 24968-12-5 25971-63-5  
 26062-94-2  
 RL: USES (Uses)  
 (dispersing agents, for sodium alkanesulfonates in  
 polyester fibers)

L75 ANSWER 59 OF 59 HCAPLUS COPYRIGHT 2006 ACS on STN  
 ACCESSION NUMBER: 1971:519175 HCAPLUS  
 DOCUMENT NUMBER: 75:119175  
 TITLE: Fiber- and film-forming aromatic  
 polyesters  
 INVENTOR(S): Igi, Keishiro; Mizuno, Masao; Kajitani, Koichi  
 PATENT ASSIGNEE(S): Kuraray Co., Ltd.  
 SOURCE: Ger. Offen., 35 pp.  
 CODEN: GWXXBX  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2063267	B2	19760102	DE 1970-2063267	197012 22
GB 1331103	A	19730919	GB 1970-60897	197012 22
PRIORITY APPLN. INFO.:			JP 1970-824	A 196912 29
			JP 1970-17332	A

197002  
28

JP 1970-17333

A

197002  
28

JP 1970-17334

A

197002  
28

GI For diagram(s), see printed CA Issue.

AB Poly(ethylene terephthalate) fibers were rendered completely **antistatic** and readily dyeable by addn. of Na benzenesulfonate-ethylene oxide adduct (I) to the polymn. melt. The poly(ethylene oxide) chain has a mol. wt. of 600-6000 and I was used in amt. of 1-2%. Other adducts of ethylene oxide, propylene oxide, or styrene oxide with benzenesulfonate, ethanesulfonate, or propanesulfonate were also used.

IT 9020-32-0 9020-73-9

RL: USES (Uses)

(fiber, **antistatic** agents for, alkylene oxide-org.  
**sulfonic acid** reaction products as)

RN 9020-32-0 HCAPLUS

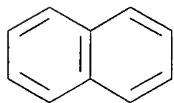
CN Naphthalenedicarboxylic acid, polymer with 1,2-ethanediol (9CI) (CA  
INDEX NAME)

CM 1

CRN 28604-87-7

CMF C12 H8 O4

CCI IDS

2 [ D1- CO<sub>2</sub>H ]

CM 2

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

RN 9020-73-9 HCAPLUS

CN Poly(oxy-1,2-ethanediylloxycarbonylnaphthalenediylcarbonyl) (9CI)  
(CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

IC C08G; D01F

CC 39 (Textiles)

ST **antistatic dyeable polyester fiber; ethylene**  
**oxide benzenesulfonate adduct**

IT **Fiber, polyester, uses and miscellaneous**

RL: USES (Uses)

(**antistatic agents for, alkylene oxide-sulfonic**  
**acid reaction products as)**

IT **Polyesters, uses and miscellaneous**

RL: PREP (Preparation)

(**fiber, antistatic agents for, alkylene oxide-org.**  
**sulfonic acid reaction products as)**

IT **Electric charge**

(**prevention of, on polyester fibers, by alkylene oxide-**  
**sulfonic acid reaction products)**

IT 9019-18-5 9019-19-6 9019-74-3 25322-68-3 26658-95-7

33678-11-4 33968-96-6 33968-97-7 34011-39-7

RL: MOA (Modifier or additive use); USES (Uses)

(**antistatic agents, for polyester fibers)**

IT 1711-24-6 9020-16-0 9020-32-0 9020-73-9

24936-76-3 24980-45-8 25248-22-0

RL: USES (Uses)

(**fiber, antistatic agents for, alkylene oxide-org.**  
**sulfonic acid reaction products as)**

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